THE ENDURING DISTINCTION BETWEEN BUSINESS ENTITIES AND SECURITY INTERESTS

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What are business entities for? What are security interests for? The prevailing answer in legal scholarship is that both bodies of law exist to partition assets for the benefit of designated creditors. But if both bodies of law partition assets, then what distinguishes them? In fact, these bodies of law appear to be converging as increasing flexibility irons out any differences. Indeed, many legal products, such as securitization vehicles, insurance products known as captive insurance, and mutual funds, employ entities to create distinct asset pools. Moreover, recent legal innovations, including "protected cells" (which were created to facilitate such products), further blur the boundaries between security interests and entities, suggesting that convergence has already arrived.

This Article identifies and defends a central distinction between business entities and security interests. We argue that while both bodies of law support asset partitioning, they do so with different priority schemes. Security interests construct asset pools subject to fixed priority, meaning that the debtor is unable to pledge the same collateral to new creditors in a way that changes the existing priority scheme. Conversely, entities are associated with floating priority, whereby the debtor retains the freedom to pledge the same assets to other creditors with the same or even higher priority than existing ones.

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The distinction is valuable in understanding financial products such as securitization, captive insurance, and mutual funds. We show that such products are driven by an appetite for assets pools with a fixed priority scheme, and recent legal innovations are primarily designed to meet this need. This distinction is consistent with the intuitive view of entities as managed going concerns and security interests as mere interests in assets. The distinction is also enduring. Despite the apparent convergence of forms, we predict that the distinction we offer will survive legal and technological innovations.

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INTRODUCTION

The last decades have brought about significant innovation in the use of business entities in financial structures. While entities have long been used to control risk and organize production, business planners gradually began using them primarily as vessels to hold assets. A prime example of such innovation is securitization. In a standard securitization, a sponsor corporation transfers some of its assets to an entity, which borrows money from creditors and passes the money back to the sponsor as consideration for the assets. In many ways, securitization resembles a secured loan directly to the sponsor. However, an entity is interposed to hold the assets in order to assure creditors of their special claim to the assets.[1] The creative use of entities to pool assets is not limited to securitization vehicles,[2] but also includes other products, such as investment funds[3] and insurance.[4] All of these industries have experienced dramatic growth in recent years amounting to many trillions of dollars.[5] A hallmark of each of these important financial

1. *See* Gary Gorton & Andrew Metrick, *Securitization*, *in* 2A HANDBOOK OF THE ECONOMICS OF FINANCE: CORPORATE FINANCE 1, 1–70 (George M. Constantinides, Milton Harris & René M. Stulz eds., 2013); Steven L. Schwarcz, *The Alchemy of Asset Securitization*, 1 STAN. J.L. BUS. & FIN. 133, 135 (1994).

2. Other securitization vehicles include collateralized loan obligations ("CLOs") and collateralized debt obligations ("CDOs"). Both of these forms carve up loans into tranches of securities with different levels of risk. *See* Christopher Whittall, *Hunt for Yield Fuels Boom in Another Complex, Risky Security*, WALL ST. J. (Oct. 22, 2017, 6:16 PM), https://www.wsj.com/articles/hunt-for-yield-fuels-boom-in-clos-1508673601 (stating that collateralized loan obligations accounted for $247 billion in the first nine months of 2017); *Experts Explain: What Is a CDO?*, WALL ST. J.: VIDEO (July 25, 2011, 12:26 PM), https://on.wsj.com/2zT30XV.

3. *See infra* Section IV.C.

4. *See infra* Section IV.B.

5. *See, e.g.*, Ralph S.J. Koijen & Motohiro Yogo, *Shadow Insurance*, 84 ECONOMETRICA 1265, 1265 (2016) (finding that shadow reinsurance grew to $364 billion in 2012); MORGAN STANLEY, AN OVERVIEW OF GLOBAL SECURITIZED MARKETS (2018), https://www.morganstanley.com/im/publication/insights/investment-insights/ii_anoverviewoftheglobalsecuritizedmarkets_us.pdf (reporting that in 2018 the global securitization market totaled $10.4 trillion); *Total Net Assets of U.S.-Registered Mutual Funds*

innovations is the partitioning of assets into different pools for the benefit of designated creditors, each with different risk profiles, contained within an entity.

The growing use of entities as a mechanism for pledging a pool of assets has been accompanied by a shift in academic thinking about the role of entities. Historically, law and economics scholars viewed entities primarily as a "nexus of contracts" between a fictional entity and investors, customers, and employees[6] and entity law as a type of standard form contract among such disparate groups.[7] However, the dominant view of late has emphasized the function of entities in patterning creditor rights in ways that no bundle of contracts could practicably achieve.[8] This asset partitioning role is a form of property law because it is good against the world and cannot be accomplished through bilateral contracts.[9] As with the concurrent innovation in business practice, this "property" theory defines the essential role of entities as a legal tool for partitioning assets into distinct pools for the benefit of some creditors relative to others.[10]

Both commercial and scholarly treatment of entities have been enriched by the asset partitioning theory. Business planners use entities in alternative forms of secured lending, and scholars rationalize entities as a species of property law. Yet it is not entirely clear why entities are actually necessary

Worldwide from 1998 to 2017, Statista, https://www.statista.com/statistics/255518/mutual-fund-assets-held-by-investment-companies-in-the-united-states (last visited Jan. 28, 2019) (reporting that in 2017, mutual funds held $18.75 trillion).

6. *See* JONATHAN R. MACEY, CORPORATE GOVERNANCE: PROMISES KEPT, PROMISES BROKEN 22 (2008); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 310–11 (1976).

7. FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 15 (1991).

8. Margaret M. Blair, *Corporate Personhood and the Corporate Persona*, 2013 U. ILL. L. REV. 785, 796 (2013); Anthony J. Casey, *The New Corporate Web: Tailored Entity Partitions and Creditors' Selective Enforcement*, 124 YALE L.J. 2680, 2680 (2015); Henry Hansmann & Reinier Kraakman, *The Essential Role of Organizational Law*, 110 YALE L.J. 387, 390 (2000) [hereinafter Hansmann & Kraakman, *Essential Role*]; Henry Hansmann, Renier Kraakman & Richard Squire, *Law and the Rise of the Firm*, 119 HARV. L. REV. 1333, 1340 (2005) [hereinafter Hansmann et al., *Law and the Rise of the Firm*]; Edward M. Iacobucci & George G. Triantis, *Economic and Legal Boundaries of Firms*, 93 VA. L. REV. 515, 517 (2007); Ron Harris & Asher Meir, *Non-Recourse Mortgages – A Fresh Start*, 21 AM. BANKR. INST. L. REV. 119, 137 n. 91 (2013); Paul G. Mahoney, *Contract or Concession? An Essay on the History of Corporate Law*, 34 GA. L. REV. 873, 876 (2000); Henry E. Smith, *Intellectual Property as Property: Delineating Entitlements in Information*, 116 YALE L.J. 1742, 1759 (2007); Richard Squire, *The Case for Symmetry in Creditors' Rights*, 118 YALE L.J. 806, 808 (2009).

9. Property rights are said to be enforceable "against the world," whereas contract rights are enforceable only against parties to the contract or, in some cases, on notice of it. *See* Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 780–89 (2001).

10. *See infra* Part I.

in such settings. Security interests also give creditors priority over identified pools of assets and would seem to provide a suitable foundation for asset-backed finance. Why not just use security interests for the same purpose? Conversely, if entities can substitute for security interests, why ever bother with security interests? The literature has long recognized the potential substitutability of entities and security interests; however, scholars have largely left open the question of whether there is any essential distinction between the two legal forms that would make one optimal relative to the other.[11] A looming possibility is that there is no essential distinction between entities and security interests and that these two legal forms will ultimately converge.[12]

Recent legal innovations may seem to suggest that this moment of convergence is fast approaching. New legal forms are emerging, which blur the distinction between security interests and entities. For example, a "protected cell company" can issue multiple tranches of notes with each issuance secured by a different pool of assets placed within a protected cell.[13] A single entity consists of multiple protected cells, each cell securing obligations to different classes of creditors. The cells exhibit some entity-like features (for example, they can own property and enter into contracts) without others (for example, they have no board of directors or charter). Not surprisingly, "cells," "series," "segregated portfolios," and other forms are used to economize the costs of creating multiple entities in products where entities are used effectively as security interests (for example, securitization vehicles, investment funds, and captive insurance). They are arguably best understood as new forms of security interest, which share many of the features associated with entities. Regardless of whether these new products are "really" entities or security interests, they have made the distinction between entities and security interests largely elusive.

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11. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 417 (acknowledging that security interests "offer a potential substitute" for entities' priority of claims); George G. Triantis, *Organizations as Internal Capital Markets: The Legal Boundaries of Firms, Collateral, and Trusts in Commercial and Charitable Enterprises*, 117 HARV. L. REV. 1102, 1138 (2004) ("Like corporations, security interests . . . can achieve the monitoring-specialization economies highlighted in the Hansmann-Kraakman hypothesis. Indeed, these monitoring efficiencies served for some time as the leading academic justification for the priority rights of secured credit." (footnote omitted)).

12. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 423 ("It is possible that the law of security interests will continue to evolve . . . . If so, the line between organizational law and the law of secured interests may become quite indistinct . . . ."); Triantis, *supra* note 11, at 1119 ("It leaves to later work the intriguing task of comparing the efficiency of various mechanisms and describing the conditions under which, for example, a project should be financed by secured credit rather than as a separate corporate entity under project finance.").

13. *See infra* Part V.

Despite these developments, this Article challenges the notion that entities and security interests are becoming indistinguishable by offering a novel theory of the distinction between them. We adopt the property theory of entities, but we develop it by preventing the collapse it implies between security interests and business entities. We argue that while both security interest law and entity law create asset partitions, they differ with respect to the priority schemes operating on those pools.

Specifically, we argue that the functional difference between security interests and entities is that entities create *floating* priority over asset pools while security interests opt the parties into a *fixed* priority scheme.[14] By floating priority scheme, we mean that the administrator of the assets is generally permitted to pledge the same assets to other creditors with the same or even higher priority than existing ones. Conversely, a fixed priority scheme means that it is not possible for the administrator to pledge the assets in a manner that changes the existing priority scheme, which typically affords a prior claim to the secured party over any other creditors.

From a theoretical perspective, the distinction we offer has five main attractive features. First, it fits well with *doctrinal* law, which insists that security interests, but not entities, establish fixed priority.[15] Second, it is consistent with the intuitive view of entities as managed going concerns and security interests as mere interests in assets. Third, it is *functional* in that it illuminates the economic benefits and costs of each priority scheme. Fixed priority reduces the creditors' costs of evaluating assets, but restricts managerial discretion, whereas floating priority decreases the former, but increases the latter.[16] Fourth, the distinction is *essential* in the sense that it is not possible to create asset pools with floating priority using only security interests and contractual mechanisms, and likewise, it is impracticable to create asset pools with fixed priority using only entities and contract.[17] Fifth,

14. We are not the first to notice that security interests permit fixed creditor priority. *See, e.g.*, Randal C. Picker, *Security Interests, Misbehavior, and Common Pools*, 59 U. CHI. L. REV. 645, 650 (1992). However, we are the first to identify fixed creditor priority as the *essential* function that distinguishes security interest law from entity law and to draw out its vital contribution to certain economic transactions.

15. *See, e.g.*, Republic Nat'l of Dall. v. Fitzgerald (*In re* E.A. Fretz Co.), 565 F.2d 366, 369 (5th Cir. 1978); *infra* text accompanying note 50.

16. By evaluating assets, we mean to encompass both the costs of appraising the assets and the costs of monitoring the debtor's use of the assets. *See infra* Section II.C.

17. Although we argue for a unique essential role for each domain, and therefore a single essential distinction, we do not believe that either body of law plays only a single role. *See* Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. 625, 633 (1997). In fact, both provide a mixture of mandatory and default terms. Although we argue that most are not essential to the bodies of law and could be obtained through alternative means, parties may well find security interests or entities

the distinction is *enduring*. It not only survives the recent evolution of new legal forms, but we predict it will also survive other innovations that will likely blur the distinction between contract law and property law, such as blockchain technology.

In addition to our theoretical contribution, the distinction between fixed and floating priority has several important practical and explanatory implications. First, it is useful for understanding how entities and security interests are used in different financial structures, primarily securitizations, investment funds, and captive insurance. Taking securitization as an example, much of the literature has focused on the use of entities in such structures. This literature emphasizes that entities are necessary in those structures because they are "bankruptcy remote."[18] Yet the literature on securitizations seems to have underappreciated the necessity of security interests to securitizations. While *most* securitizations use entities, *all* use security interests. This is because without fixed priority, the economic rationale for securitizations—particularly reducing the costs of evaluating assets—would largely disappear. More surprisingly, we show that demand for fixed priority explains the structure of other financial products, such as mutual funds and captive insurance.

Second, the distinction we propose allows us to better understand the recent evolution of new legal forms. We show that with few exceptions, these forms are better characterized as security interests, and that their evolution is mainly driven by an appetite for fixed priority schemes. In particular, most jurisdictions limit the use of cells to particular financial products (especially securitizations, investment funds, and captive insurance), and through regulation of such products, the administrator of the assets cannot change the priority scheme of the creditors secured by the cells. In this way, we claim that the evolution of the new form does not undermine the distinction between fixed and floating priority, but rather reinforces it.

Third, our account may inform judicial decisionmaking. With the evolution of innovative financial structures and flexible legal forms, courts are called on to characterize these flexible forms and define their scopes. Are the cells entities? Security interests? Without functional principles for such

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to be a salient or convenient path.

18. That is, placing the assets within a special purpose entity ("SPE") reduces the possibility that the sponsor corporation's bankruptcy will affect the SPE's creditors and claims. *See* Gorton & Metrick, *supra* note 1, at 9; Schwarcz, *supra* note 1, at 35. *See generally* Kenneth M. Ayotte & Stav Gaon, *Asset-Backed Securities: Costs and Benefits of "Bankruptcy Remoteness"*, 24 REV. FIN. STUD. 1299 (2011) (finding a pricing premium for bankruptcy remote instruments).

cases, legal results will be either arbitrary or formalistic.[19] Our analysis can guide courts in adjudicating cases that involve such determinations.

Fourth, our analysis suggests that there may be scope for further flexibility in legal forms, primarily security interests. In particular, we recommend according greater bankruptcy remoteness to security interests, at least for certain financial transactions such as securitizations. Such a reform could introduce greater legal certainty at a lower cost.

Our Article proceeds as follows. Part I explains the functional similarities between entities and security interests as asset partitioning technologies and shows how each can often serve as a substitute for the other. Part II explains our thesis that the feature distinguishing entities and security interests is that the former provides a floating priority scheme and the latter provides a fixed priority scheme. Part III discusses alternative candidate distinctions and explains why they are not satisfactory. Part IV lays out the explanatory implications of our view, showing how it sheds light on existing financial products. Part V discusses the evolution of new legal forms, such as protected cell companies. Part VI presents some policy implications. Part VII expresses our view that the analytical distinction we make will survive legal and technological innovations.

I. ENTITIES AND SECURITY INTERESTS AS PROPERTY LAW

Before embarking on the task of articulating a distinction, it is important to highlight the functional similarities of entities and security interests as property law. By *property law*, we mean that these bodies of law create entitlements that are binding against the world rather than just against those who agree to them. Property law is essential to facilitating *asset partitioning*, which means shielding a pool of assets from the claims of creditors of other pools of assets.[20]

To illustrate the idea of asset partitioning, it is useful to have in mind a simple example.[21] Consider an individual ("the owner") who wishes to finance several shopping malls. For example, A1 (for "Asset 1") might be a large outdoor luxury shopping mall in Hawaii, geared to high-end tourists.[22]

19. *See infra* Section VI.A.

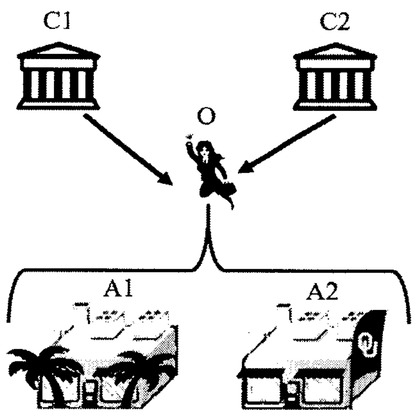
20. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 390.

21. Our example is loosely based on the business model of General Growth Properties, an enterprise that operated about over 200 shopping malls financed mainly through securitization vehicles, as described in its highly publicized bankruptcy. *See generally In re* Gen. Growth Props. Inc., 409 B.R. 43 (Bankr. S.D.N.Y. 2009) (deciding motions in General Growth Properties' bankruptcy case).

22. This example is based on the Ala Moana mall, a former General Growth property that is located near Waikiki Beach in Honolulu, Hawaii. It is the largest outdoor shopping mall in the world, and home

A2 might be a small, local indoor mall in Oklahoma, which attracts local residents and students at a nearby university.[23] The owner's financiers are C1 (for "Creditor 1"), C2, C3, and so forth.[24] The simplest arrangement for financing these malls is for the owner to personally own the assets and borrow from the creditors. This arrangement is depicted visually in Figure 1.

FIGURE 1. No Partition



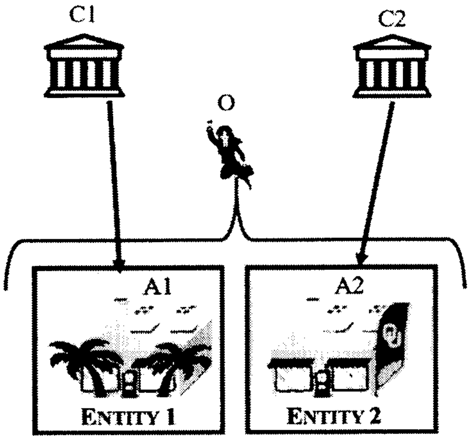
Alternatively, the owner could place the Hawaiian shopping mall in Entity 1 and cause Entity 1 to borrow only from C1. She could likewise place the Oklahoma mall into Entity 2, to which C2 would lend (see Figure 2). Entities make it possible for a single owner to divide her assets into distinct pools, each of which can be selectively pledged to or withheld from particular creditors.

to luxury shops such as Gucci and Chanel. *See Retail Space for Lease at Ala Moana Center*, BROOKFIELD PROPS., https://www.brookfieldpropertiesretail.com/properties/property-details/ala-moana-center.html (last visited Jan. 28, 2019); Declaration of James A. Mesterharm Pursuant to Local Bankruptcy Rule 1007-2 in Support of First Day Motions at 66, *In re* Gen. Growth Props., Inc., No. 09-11977, 409 B.R. 43 (Bankr. S.D.N.Y. 2009), ECF No. 13 [hereinafter Mesterharm Declaration].

23. This example is based on another one of General Growth's shopping malls, called Sooner Mall, which is located in Norman, Oklahoma. *See Retail Space for Lease at Sooner Mall*, BROOKFIELD PROPS., https://www.brookfieldpropertiesretail.com/properties/property-details/sooner-mall.html (last visited Jan. 28, 2019); Mesterharm Declaration, *supra* note 22, at 59.

24. These financiers are not limited to banks; trade creditors, such as suppliers, often become creditors as they wait for payment for services rendered or for goods delivered.

FIGURE 2. Entity Partitioning



Organizing the assets in this way, she isolates each creditor's risk exposure to a specified pool and simultaneously protects each pool from the creditors of other pools. A downturn in tourism in Oahu is bad news for C1; the likely decrease in the value of the Hawaii mall makes her less likely to be repaid. However, tourism is of no concern to C2. His claim on the Oklahoma mall is just as strong as before—he need not fear that C1 will levy on the Oklahoma mall.

This asset partitioning through the use of entities reduces the costs of appraising the credit risk of the owner and monitoring her.[25] No individual creditor need invest in the capacity to appraise and monitor the debtor's whole corpus of operations. Instead, each creditor can specialize in one pool of assets, disregarding the others.[26] C1 can specialize in high-end malls in Hawaii, whereas C2 can focus on the local Oklahoma shops.

Security interests can achieve similar asset partitioning to that of entities, with comparable benefits.[27] Imagine that instead of using any entities, the owner borrows and owns the assets personally—but grants

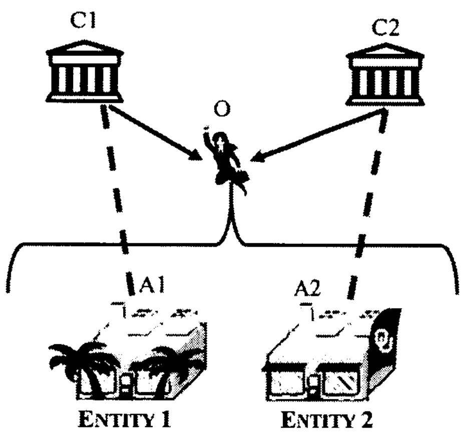
25. Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 390.

26. *Id.* at 399–404. Partitioning can also prevent redundant and insufficient monitoring. *See* Picker, *supra* note 14, at 660; Saul Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 YALE L.J. 49, 51–53, 57–59 (1982).

27. Thomas H. Jackson & Anthony T. Kronman, *Secured Financing and Priorities Among Creditors*, 88 YALE L.J. 1143, 1143 (1979). *But see* Alan Schwartz, *Security Interests and Bankruptcy Priorities: A Review of Current Theories*, 10 J. LEGAL STUD. 1, 9–14 (1981) (questioning the empirical foundation of the claim that junior creditors monitor).

security interests in her assets to particular creditors. She grants C1 a security interest in A1, the Hawaiian shopping mall, and she grants C2 a security interest in A2, the Oklahoma shopping mall.

FIGURE 3. Security Interest Partitioning



In this way, C1's priority to the Hawaiian shopping center over C2 is assured, as is C2's priority over C1 to the Oklahoma shopping mall.[28] Pacific tourism does not impact the value of C2's claim. Likewise, C1 can disregard any local conditions that could affect the Oklahoma mall. As with entities, this structure isolates creditor risk exposure and allows specialization.[29] To be sure, there are some differences between entities and security interests. We discuss these in detail in Part III below.

This asset partitioning function of both entities and security interests is a species of property law because it cannot be practically accomplished through contracts alone. The reason is that contractual promises are bilateral and, unlike property law, do not bind third parties.

Without using security interests or entities, C2 might demand from the owner that C1 (and any future creditors) have no recourse to the Oklahoma mall. But even if the owner agrees to such a contractual term, she may rationally breach it to C2's detriment. She can get a cheaper interest rate from C1 by offering recourse to all of her assets, including the Oklahoma mall.

28. This is subject to the risk that whole business of the owner becomes bankrupt. *See infra* Section III.G.

29. *See, e.g.*, Jackson & Kronman, *supra* note 27, at 1156–57 n.51; Levmore, *supra* note 26, at 53; Picker, *supra* note 14, at 658.

The owner can also shift assets from one business to another. For instance, the owner could sell a valuable Waikiki property and plow the proceeds into an expansion of the Oklahoma shopping mall, exposing C1 to risk that he did not bargain for. C2 can sue owner for these breaches, but he cannot invalidate C1's claim to all of the owner's assets, including the Oklahoma mall, or undo the sale of the Hawaii mall. Any deal between C2 and the owner was a contractual deal, and contracts bind only on those who have notice of them.

C1 would fare better if the owner granted him a security interest or placed the mall in a separate entity.[30] Efforts to move assets across asset partitions, or otherwise shift the assets away from their intended purposes, are constrained by various remedies against wrongful shifting, primarily fraudulent conveyance laws in the case of entities, and encumbrance on the property in the case of security interests.[31] Property law thus solves a multilateral commitment problem that contracts alone cannot.

II. OUR PROPOSED DISTINCTION: FIXED VERSUS FLOATING PRIORITY

In this Part we identify and defend the respective functions served by entities and security interests that cannot be practicably reproduced by the other form. We argue that although both bodies of law can partition assets, they do so with different rules for updating priority over those assets.

When entities are used to partition assets, they do so without fixing the priority of creditors to the assets. If the pool lacks the resources to fully repay all the creditors, they share ratably in their recovery. The parties can initially agree to a payment hierarchy, so that one creditor gets higher priority than another, but the credit hierarchy is floating because the owner can always update it to undermine the priority of existing creditors by pledging the assets to additional creditors. In contrast, security interests *fix* priority against later efforts by the owner to grant equal (or higher) priority to other creditors. The typical fixed priority pattern is to prioritize the first perfected secured interest over other claims in the assets.[32]

The fixedness of priority is a ubiquitous feature of security interests. Not only *can* security interests create priority schemes over a pool of assets, but they *always* grant fixed priority.[33] Security interests and entities coexist

30. Triantis, *supra* note 11, at 1131.

31. *See infra* Section III.C.

32. U.C.C. § 9-322(a) (AM. LAW INST. & UNIF. LAW COMM'N 2010).

33. Our fixed priority thesis does not entail that priority is immune to all change. Rather, we claim

in the world and in particular structures because they offer different and irreplaceable priority schemes for creditors.

In order to show that security interests and entities are truly distinct, we need to show that their functions are distinct, in that each performs an essential role that no other body of law can perform. In Section II.A, we show that one cannot create floating priority asset pools without entity law, and in Section II.B, we explain that it is impossible to create fixed priority that binds third parties without security interests.

Section II.C describes what is at stake in choosing one priority scheme over another. The distinction between fixed and floating priority is economically functional, conferring differing costs and benefits to the parties who use them. We explain the tradeoffs inherent in deploying one body of law or the other.

A. ONLY SECURITY INTERESTS ALLOW FIXED PRIORITY OVER AN ASSET POOL

We first argue that security interests, but not entities, can create fixed priority. To draw again on the shopping mall example, we claim that if C2 wishes to have first priority over the Oklahoma mall, only security interests make this possible. If the owner instead partitions her assets by placing the Oklahoma mall in a separate entity, but does not give C2 a security interest over the mall, C2 would not be able to achieve fixed priority over it. We examine four possible techniques to create fixed priority without security interests, none of which succeed.

1. Covenants

A plainly insufficient strategy is simply to have the owner promise not to take on new creditors as peers to C2. The trouble is that these promises are binding only on the owner, and not any other creditor (such as C3) who lends to the owner. What C2 would like to do, and what contract law does not allow, is to cite the owner's promise in litigation against C3 to undermine C3's claim on the assets. C2 may monitor the owner to make sure that her priority is respected, but such monitoring is likely to be very costly, and unrealistic for all but the largest creditors.

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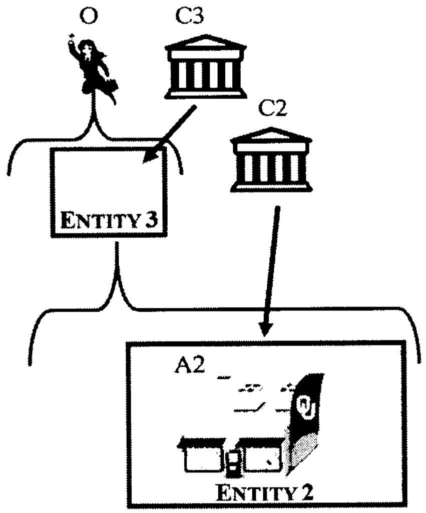
that security interests fix priority *to whatever degree and in whatever way* the law allows.

2. Structural Priority

It may be argued that perhaps structural priority, the stacking of entities into nested tiers, can fix the priorities among creditors.[34] Imagine that owner wishes to finance the Oklahoma mall, with a $10 senior loan from C2 and a $10 junior loan from C3. The owner can achieve this result by forming Entity 3, of which she is the sole shareholder, and which owns nothing but shares of Entity 2. Entity 2 is then made the owner of the business assets. In principle, C2 will be repaid if the assets produce $10 because the money is generated by an entity that owes no one except for C2. Only if Entity 2 makes enough money to cover its debts to C2, can it pay dividends up to Entity 3—which can use that money to pay C3. As depicted in Figure 4, this structure creates a payment hierarchy.[35]

FIGURE 4. Structural Priority



However, structural priority is an imperfect substitute for fixing priorities. Entity 2 can simply take on additional creditors as peers to C2. C2 retains priority over C3, but not over any other future creditors of Entity 2. Covenants not to take on additional creditors are not credible in the same way as discussed above.

34. For a discussion of how structural priority can establish the priorities among creditors, see Douglas G. Baird, *Priority Matters: Absolute Priority, Relative Priority, and the Costs of Bankruptcy*, 165 U. PA. L. REV. 785, 820–21 (2017).

35. Casey, *supra* note 8, at 2740 n.180.

3. Charter Provision

Some scholars have argued that an entity's charter should be able to affect creditor relations. For example, a corporation's charter might be amended to specify that it can no longer borrow, or can borrow only junior terms, and to award recovery rights against third parties who frustrate these objectives.[36] C2 could then sue to invalidate as ultra vires any transaction at odds with a priority-fixing charter provision, such as a loan from C3. Unfortunately for C2, courts do not invalidate ultra vires transactions.[37] C3's interest would remain valid even if it violated a charter provision.[38] Moreover, a charter provision limiting the firm's ability to borrow is generally not enforceable.[39]

4. Creditor Control

Another idea would be for C2 to take control of Entity 2, so that C2's approval would be required for any new borrowing. C2 could then decline to authorize any credit that would undermine C2's senior priority. C2 could take this control in a number of ways, but one of them would be for the owner to assign her ownership interest in Entity 2 to C2. As controlling shareholder, C2 could select a trusted board that will cater to his or her interests.

However, control is not a practical solution. First, it is at best a solution for just one creditor; it is not feasible for every creditor in the hierarchy to take an absolute assignment and install a board of directors. Second, the controlling creditor exposes itself to liability.[40] Third, creditor control is likely to be inefficient. Usually, the owner has the best incentives and expertise to select and discipline managers of the assets.

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36. *See generally* Barry E. Adler & Marcel Kahan, *The Technology of Creditor Protection*, 161 U. PENN. L. REV. 1773 (2013) (discussing ways to award recovery rights against third parties).

37. DEL. CODE ANN. tit 8, § 124 (2018) (making ultra vires acts enforceable). Charters can create priority among shareholders, for example when preferred stockholders gain a preference over common stockholders. However, this is only binding on participants to the corporate contract who were on notice of the potential for issuing new shares that might alter intra-shareholder priority, and it cannot alter the priorities of third parties.

38. *See* Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN. L. REV. 311, 338 (1993) (discussing the law of apparent authority). The debt would be ultra vires, but that does not render it unenforceable. *See, e.g.*, DEL. CODE ANN. tit 8, § 124 (making ultra vires acts enforceable); *In re* Mulco Prods., Inc., 123 A.2d 95, 103–05 (Del. Super. Ct. 1956) (describing the law of apparent authority), *aff'd sub nom.* Mulco Prods., Inc. v. Black, 127 A.2d 851 (Del. 1956); *see also* Picker, *supra* note 14, at 652 (discussing a debtor's ability to assure a creditor that the debtor will not take on new debt).

39. *See* Adler & Kahan, *supra* note 36, at 1795 n.63.

40. Control may cause a creditor's claims to be equitably subordinated in bankruptcy or expose the creditor to lender liability lawsuits. *See* Steven L. Schwarcz, *The Easy Case for the Priority of Secured Claims in Bankruptcy*, 47 DUKE L.J. 425, 438–39 (1997).

Fourth, creditor control sets in motion a problem of debt liquidity. C2 knows better than anyone else whether she has been effective in enforcing the priority scheme. Perhaps C2 has allowed a senior or peer claim to arise, out of error or in exchange for side-payment. When C2 wishes to sell her interest to a new investor, that new investor will not know whether C2 truly has the senior priority she claims to have.[41] The new investor will discount C2's interest accordingly, in a way that would not occur if C2's priority was public knowledge.[42]

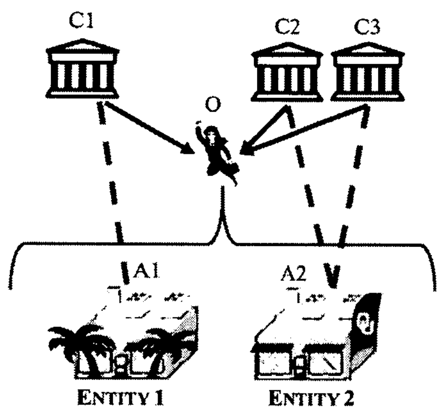
B. ONLY ENTITIES ALLOW FLOATING PRIORITY OVER AN ASSET POOL

We have argued that entities cannot create fixed priority, and we now show that the complementary limitation applies to security interests, such that floating priority over asset pools would be impracticable without entities. Thus, the only way for the owner to create floating priority as to the Oklahoma mall is for her to place it within an entity, as in Figure 2. Figure 5 demonstrates that, in principle, security interests (sans entity) can achieve asset partitioning. However, security interests necessarily deny the owner the power to raise additional funds by pledging the collateral to later creditors (C3, C4, and so forth). To prove our claim, we consider three non-entity techniques for creating floating priority over asset pools. All three fail.

41. For the classic discussion of this information asymmetry, see generally George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970).

42. In contrast, information on security interests is generally publicly available in the relevant registry.

FIGURE 5. Security Interest Partion with Multiple Creditors



1. Ex Post Consent

The owner could freely add creditors to Asset 2 if the existing creditors always agree to subordinate themselves when the owner wishes to pledge the same asset to a new creditor (C4). Then the Oklahoma mall will serve as ratable collateral to C2, C3, and C4, all of whom will recover ahead of C1. Yet securing creditor-by-creditor consent is impractical for large ventures with millions of creditors (including all customers, suppliers, and investors). Each new creditor would necessitate unique subordination agreements from the entire existing network. Moreover, it is unrealistic to assume that creditors will assent to subordination. Some might like to freeride on other creditors, retaining their priority even as other creditors accept subordination. Others might simply hold out, demanding payment in exchange for consent. As many creditors make these types of strategic calculations, the costs of obtaining ex post consent will likely be preclusive.

Transaction costs continue to mount since each new creditor will have to expend resources verifying that subordination of all previous creditors has been accomplished. If the owner fails to secure a valid subordination from C2, then C2 will retain higher priority over C4. To actually protect her interest, C4 would have to vet each purported subordination agreement to make sure that it is valid and effective, and she would have to check whether any creditors' subordination agreements are missing from the stack. Thus, ex post consent creates a staggering due diligence burden for later creditors.

2. Ex Ante Consent

The owner may bargain with a potential creditor for the right of the owner to add new peer creditors that will share with him equal priority to the assets. For example, imagine that at the time of contracting, C2 agreed to subordinate herself to any other creditor who met certain specified conditions. Among those conditions would be acceptance of an identical subordination agreement. Thus, C2 would hold the first lien on the Oklahoma mall, but would be a peer to C3 if C3 agreed to subordinate herself to all similarly agreeing creditors. When C4 arrives, she will have an incentive to adopt a similar clause. If she does so, then C2 and C3 will automatically relinquish their higher priority. If she fails to adopt such an agreement, the prior subordination agreements will not apply to her, and she will therefore fall behind C2 and C3. If all of them comply, the result is that each creditor would share ratably in the Oklahoma mall.

Yet this solution also falls apart in light of the same problems that plagued the ex post solution. It is possible that C4 will not want to join the consortium. Failing to do so will place her lower in priority than C2 and C3—but it will preserve her status against all later creditors.[43] The fact that some creditors could rationally opt out of the arrangement resuscitates diligence problems, as later creditors demand assurances that all earlier creditors have opted in to the equality scheme.

3. Single Creditor

Another more complicated ex ante technique would be to try to run all of a project's financing through a single creditor (C2).[44] C2 takes a first lien over the Oklahoma mall to secure all present and all future claims by C2, even claims acquired by assignment from subsequent creditors nominated by the owner. When the owner borrows from C3, she nominates C3's claim as eligible for assignment. C3 assigns the claim to C2 (in exchange for a non-recourse claim against C2 secured by the very claim assigned to C2). The new loan now stands as equal priority to C2's original claim because the security interest covers all claims held by C2. This seems to create floating priority because the owner has the power to change the priority of the

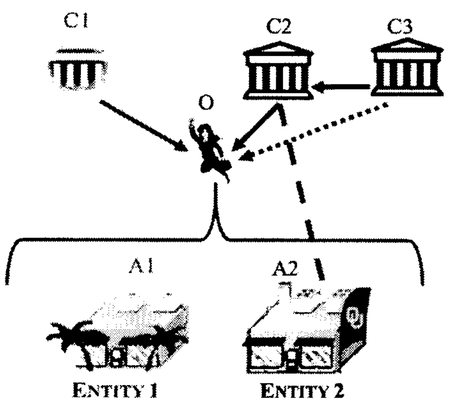
43. In many cases, being third in priority may be better than having equal priority with all creditors. For example, imagine that 100 creditors are each owed $10 and that the enterprise is worth only $30. If all creditors share ratably, then each will receive $0.03. However, if C3 ranks higher than ninety-seven creditors, she should be able to fully recover her claim.

44. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 419–20 (discussing the possibility and limitations of a single-creditor solution to asset partitioning); *see also* Robert E. Scott, *A Relational Theory of Secured Financing*, 86 COLUM. L. REV. 901, 948–50 (1986) (discussing single-creditor lending to small firms).

creditors by assigning new claims to C2. Figure 6 depicts this arrangement.[45]

Nevertheless, this clever maneuvering is unlikely to be a good substitute for floating priority. The apparent ratable priority disappears whenever the later creditors want to make a claim. Recall that the claims against the owner are equal priority only when in C2's hands. Suppose C2 ceases to pay C3 or C4, for example, if the owner does not pay C2 with respect to their respective claims. In this case, recovery by C3 and C4 is limited to the claims (against the owner) that they transferred to C2. Upon repossessing them, they drop back into the lower priority earned by their order of perfection. Thus, fixed priority in reinstated whenever priority ends up mattering.

FIGURE 6. Security Interest Partition with Lead Creditor



More importantly, courts resist schemes such as the one depicted in Figure 6. In *In re E.A. Fretz Co.*, a creditor attempted to create floating priority by entering into security agreements that purported to secure the loans not only by that creditor, but also loans by the creditor's "present or future affiliates," and covered debt owed by the debtor that the creditor may have obtained "by assignment or otherwise."[46] The creditor then obtained notes from its affiliated creditors who advanced funds to the debtor.[47] The creditor claimed that all affiliated creditors were covered by the security interest, such that they shared ratably in the secured assets (and ahead of third-party creditors).

45. We have also dimmed the creditor and asset that is not relevant to the discussion.

46. Republic Nat'l Bank of Dall. v. Fitzgerald (*In re* of E. A. Fretz Co.), 565 F.2d 366, 368–69 (5th Cir. 1978).

47. *Id.* at 368.

However, the Fifth Circuit held that notwithstanding the security agreements, the subsidiaries could not benefit from the parent's prioritized security interest.[48] The court held that Article 9 does not permit "'floating secured parties,' that is, an open-ended class of creditors with unsecured and unperfected interests who . . . can assign their claims to a more senior lienor and magically secure and perfect their interests under an omnibus security agreement and financing statement."[49] The court reasoned that allowing such conduct "would disrupt commercial transactions to an unwarranted and unnecessary degree[,]"[50] presumably because it would undermine the *fixed* scheme created by security interests.

C. THE RELATIVE BENEFITS (AND COSTS) OF FLOATING AND FIXED PRIORITY

In this Section, we elaborate on the key benefits and costs associated with fixed and floating priorities. Ultimately, the optimal priority scheme depends on a trade-off between reducing the costs of evaluation through fixed priority and the benefits of maintaining managerial discretion to finance the business.

As discussed above, reducing creditors' costs of evaluating assets is probably the most often cited benefit of asset-partitioning.[51] Fixed priority reduces these costs even further. Using again our simplified example, suppose the Oklahoma shopping mall is placed within Entity 2 owned by the owner, and C2 lends to Entity 2, as in Figure 2. Compare this with a situation

48. *Id.* at 372.

49. *Id.* at 369.

50. *Id.* at 372. Other courts have reached similar conclusions. *See, e.g.*, W.C. Fore Trucking Co. v. Biloxi Prestress Concrete, Inc. (*In re* Biloxi Prestress Concrete, Inc.), 98 F.3d 204, 209 (5th Cir. 1996); Whitlock v. Max Goodman & Sons Realty, Inc. (*In re* Goodman Indus., Inc.), 21 B.R. 512 (Bankr. D. Mass. 1982); *In re* Adirondack Timber Enter., No. 08–12553, 2010 WL 1741378, at *3–4 (Bankr. N.D.N.Y. Apr. 28, 2010). Note that cases sanctioning the use of participation agreements, whereby participant lenders may benefit from a lead lender's prioritized security interest, are consistent with this view. *See, e.g.*, Bayer Corp. v. MascoTech, Inc. (*In re* AutoStyle Plastics, Inc.), 269 F.3d 726, 744 (6th Cir. 2001). Under such agreements, only the lead lender may pursue recourse against the debtor, and participant lenders are paid by and have contractual relationships with the lead lender, not the debtor. *Id.* at 736. Participant lenders benefit from a lead lender's prioritized security interest, particularly where the lead lender's credit arrangement with the debtor is expandable, because the lead lender may claim the full amount of the debt, which it may use to pay the participant lenders. *Id.* at 736–37. Such arrangements thus represent security interests for floating debt, not floating priority for creditors.

51. *See, e.g.*, Casey, *supra* note 8, at 2684–85 (arguing that tailored asset partitions facilitate effective creditor monitoring); Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 401–03; Jackson & Kronman, *supra* note 27, at 1156; Levmore, *supra* note 26, at 49–50; Richard A. Posner, *The Rights of Creditors of Affiliated Corporations*, 43 U. CHI. L. REV. 499, 501–02 (1976); Gabriel Rauterberg, Agency Law as Asset Partitioning 17 (Aug. 10, 2015) (unpublished manuscript), https://papers.ssrn.com /sol3/papers.cfm?abstract_id=2641646.

whereby C2 lends to the owner and gets a security interest in the shopping mall (A2), as in Figure 3. In both cases, C2 will have priority over C1. However, in the first case, C2's claim to the shopping mall in the event of default will be diluted by the claims of any other creditors to Entity 2, say C3, C4, and so forth. On the other hand, if C2 has a security interest, she can generally collect on the shopping mall, without worrying about any other creditors, who will have to claim against the other assets of the owner or whatever value is left in A2 once C2 is satisfied. As a result, C2 does not need to spend as much resources on evaluating the creditworthiness of the owner and the owner's management of the business. In contrast, if the owner can borrow from other creditors through Entity 2, C2 must expend the costs of assessing *ex ante* the quality of the management by the owner and monitor the business to make sure that the owner doesn't excessively leverage Entity 2. C2 must also check whether the owner uses the proceeds of all loans (not just the loan from C2) for productive purposes. If C2 fails to do so, the value of her claim against Entity 2 will be diluted.

Against the savings in evaluation costs, parties must trade-off the value of managerial discretion. Under floating priority, the owners retain the right to take on new creditors with the same priority. Fixed priority imposes constraints on the owner's subsequent borrowings. Subsequent lenders will be more hesitant to lend if they stand lower in priority than earlier secured creditors, or will demand higher interest rates. This can be inefficient if it hampers a firm's ability to raise funds for productive activity.

For many operating companies, the managers (on behalf of the owner) need flexibility to respond to changing circumstances—adjusting the company's assets and liabilities accordingly. It could be very costly for the business to give up this flexibility in terms of future borrowing. The creditors in this case are effectively lending against the going-concern value of the company, and such value is a function of managerial discretion. In fact, even the creditors would be harmed by unduly impairing the ability of managers to obtain more financing, because such financing could be essential for enhancing the going-concern value of the business.

As one extreme example, consider the value of flexibility for a leveraged buyout ("LBO"). In an LBO, the stock of the company is sold to a new buyer, typically a private equity firm, which obtains financing from a creditor using as security all the assets of the business. Thus, an LBO involves a comprehensive updating of the priority of all existing creditors by subordinating them to a single creditor. If all priorities were fixed, it would be difficult to effect an LBO. Creditors would be reluctant to finance these risky transactions if they stood last in line behind all existing creditors. Yet

LBOs have historically yielded significant profits for shareholders and increased efficiency of firms.[52] Floating priority reserves for managers the option to undertake an LBO, which may be a valuable option for some companies.

Fixed priority is more valuable in two main circumstances. The first is when the value of managerial discretion is limited. The simplest example is a home mortgage. Creditors *could* finance individual homes by placing the house in an entity without a security interest and extending the loan to the entity. However, they do not use this alternative form of asset partitioning. Instead, mortgages (that is, security interests) are ubiquitous in residential finance transactions. The reason is in part that managerial discretion is a bug, not a feature, in these consumer transactions. The owner of an entity would be able to pledge the house to other creditors, a decision unlikely to be valuable for the bank-creditor. Homeowners are unlikely to be skilled business people. To the contrary, a homebuyer is more likely to engage in undue risk or personal consumption. The costs to the creditor of monitoring the other loans of the homeowner would be extremely high. Without security interests, debtors would be tempted to take on negative expected value projects, pledging existing collateral for increasingly risky ventures.[53]

The second circumstance is when debt liquidity is critical. If debt can be sold in the secondary market, the owner can obtain better credit terms. Debt is more liquid when its priority is fixed. The reason is that if buyers had to undertake expensive appraisal and monitoring of the creditworthiness of the owner, the transaction costs of buying the debt would be higher. Consider a creditor that buys a home mortgage from the original lender (or more likely, buys many home mortgages from many lenders). The home mortgage would be difficult to assign if the buyer in the secondary market needs to accrue substantial costs in monitoring the homeowner.

Secondary sales are subject to an adverse selection problem, which is the risk that the sellers are only selling the worst debt and keeping the best for themselves. For example, buyers may be concerned that the owner has pledged the house to additional creditors. If the priorities to the underlying

52. Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323, 326–27 (1986); Steven Kaplan, *The Effects of Management Buyouts on Operating Performance and Value*, 24 J. FIN. ECON. 217, 250–51 (1989); *cf.* Andrei Shleifer & Lawrence H. Summers, *Breach of Trust in Hostile Takeovers*, *in* CORPORATE TAKEOVERS: THEIR CAUSES AND CONSEQUENCES 33, 53 (Alan J. Auerbach ed., 1988).

53. *See* Oliver Hart & John Moore, *Debt and Seniority: An Analysis of the Role of Hard Claims in Constraining Management*, 85 AM. ECON. REV. 567, 568 (1995); George G. Triantis, *A Free-Cash-Flow Theory of Secured Debt and Creditor Priorities*, 80 VA. L. REV. 2155, 2155–57 (1994).

assets cannot be undermined by the owner, then buyers need not investigate whether the owner has taken such an action. At least one study confirms that that security interests improve liquidity, by showing that secured bonds have higher liquidity than unsecured bonds, controlling for various bond characteristics, even including the rating of the bonds.[54]

III. OTHER POTENTIAL DISTINCTIONS AND WHY THEY DO NOT WORK

We showed in Part II that the distinction between fixed and floating priority may serve as the distinction between entities and security interests. An essential distinction must provide a meaningful economic function that cannot be accomplished by a creative use of the other legal form and other bodies of laws, primarily contract and agency law. In this Part we show that other potential distinctions do not satisfy these criteria. Nevertheless, we briefly explain why such characteristics are more likely to follow from or accompany legal pools with fixed or floating priority, as applicable: many familiar features of both bodies of law work to support the essential distinction. Thus, these other potential distinctions are often complements to our fixed/floating distinction.

A. FIXED POOLS OF ASSETS

Security interests typically attach to identified assets, such as a home or a shopping mall. This is reflected in the U.C.C., which prohibits a blanket pledge of all the assets of any description and requires a more specific description of the particular assets which are covered by the security agreement.[55]

However, it is unlikely that specificity of the pool of assets is the distinguishing feature of security interests. For one thing, security interests allow floating asset pools. The U.C.C. does allow floating liens over assets that cover both present and future ("after-acquired") assets.[56] Creditors also commonly take interests in the proceeds of the assets, meaning the cash for

54. Efraim Benmelech & Nittai Bergman, *Debt, Information, and Illiquidity* 18–19 (Nat'l Bureau of Econ. Research, Working Paper No. 25054, 2018), https://www.nber.org/papers/w25054.

55. U.C.C. §§ 9-108(c), 9-504(2) (AM. LAW INST. & UNIF. LAW COMM'N 2010); *see also* Melissa B. Jacoby & Edward J. Janger, *Ice Cube Bonds: Allocating the Price of Process in Chapter 11 Bankruptcy*, 123 YALE L.J. 862, 922–24 (discussing obstacles to obtaining a security interest in all of a debtor's property).

56. U.C.C. § 9-204. Moreover, security interests in inventory do not follow the inventory if sold in the ordinary course of business, see *id.* § 9-320, and ordinarily security interests in deposits do not follow the cash once it is withdrawn, see *id.* § 9-332(a).

which items are sold and whatever that cash is spent on.[57] Moreover, other jurisdictions go even further by allowing security interests to float over the whole business.[58] On the other hand, some entity-based transactions such as securitizations are designed to restrict any change in the pool of assets.[59]

It is not surprising, though, that security interests are associated with more specific or clearly defined sets of assets. Creditors who seek fixed priority are taking steps to support specialized monitoring and facilitate valuation in a secondary market. Generally, if the pool of assets is subject to drastic changes, the monitoring efficiencies associated with fixed priority may be lost.

B. FILINGS BY CREDITORS

Adding secured creditors may be cumbersome. For example, Article 9 typically requires filing a new financing statement that lists the new creditor by name.[60] Entity-based pools can take on new creditors without filing. However, filing obligations are unlikely to be material.[61] Scholars have noted that, in practice, the cost of filing affects the decision of whether to secure a loan "only in very rare cases."[62] Further, as information technology improves, recording and verification costs are likely to decrease.[63] Moreover, even entities must make frequent filings.[64]

Although filing cannot serve as a principled distinction between the two bodies of law, requiring it makes sense for security interests, but not entities.[65] Filing through a registry gives notice to creditors about those who

57. *See id.* § 9-315.

58. For example, the English floating charge is a security interest over all or substantially all of the assets of a company. *See* ROY GOODE, PRINCIPLES OF CORPORATE INSOLVENCY LAWS 325–27 (4th ed. 2011).

59. *See infra* Part IV.

60. U.C.C. § 9-310; Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 418. Article 9 allows alternative methods for perfecting a security interest. *Id.* § 9-310(b). For example, possession is a common means of perfection often associated with pawn shops. *Id.* § 9-313. Control is also often used to perfect interest in securities. *Id.* § 9-314. Other security interests perfect automatically, without any filing. *Id.* § 9-309.

61. *See, e.g.*, Barry E. Adler, *An Equity-Agency Solution to the Bankruptcy-Priority Puzzle*, 22 J. LEGAL STUD. 73, 80 (1993).

62. Mann, *supra* note 17, at 662–63. Mann put the cost as $40 per $100,000, or one twenty-fifth of one percent of the principal loaned.

63. Barry E. Adler & George Triantis, *Debt Priority and Options in Bankruptcy: A Policy Intervention*, 91 AM. BANKR. L.J. 563, 572 (2017).

64. For example, publicly traded corporations must file an 8-K to report "material . . . agreements . . . not made in the ordinary course of business." Additional Form 8-K Disclosure Requirements & Acceleration of Filing Date, 17 C.F.R. §§ 228–30, 239–40, 249 (2018).

65. Henry Hansmann & Reinier Kraakman, *Property, Contract, and Verification: The Numerus*

have fixed priority to the relevant asset pool. This information is likely relatively stable. Conversely, information about the identity of unsecured creditors who have floating priority is likely to be unhelpful to other creditors because the manager of the assets can change their identity at any time.

C. IN REM RIGHTS AGAINST THIRD PARTIES

Security interest law gives secured parties a remedy against third parties.[66] When a lien attaches to an asset, that lien follows the asset even if it is sold. If the debtor defaults, the creditor can foreclose on the asset,[67] even if it is in the hands of new, potentially innocent owners.[68] Both discourage unauthorized shifting of encumbered assets and protect the creditor if such shifting occurs.[69] This type of right against third parties is typically referred to as the "in rem" quality of property law, as opposed to "in personam" rights. The latter are created by contract law and are binding only on the contracting parties and, sometimes, those on notice of the contracts.

Yet the advantages of security interests in this respect are relative rather than absolute. Entity law can also give an asset pool's creditors a claim against third parties, so it is also in rem. When assets are owned by an entity, efforts to sell or pledge them are subject to fraudulent conveyance law, which invalidates transfers that are intended to frustrate creditors.[70] It also invalidates transfers for less than reasonable value when the debtor becomes

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Clausus Problem and the Divisibility of Rights, 31 J. LEGAL STUD. S373, S393–95 (2002) [hereinafter Hansmann & Kraakman, *Property, Contract, and Verification*] (discussing the trade-off between benefit to parties of using property law against investigation cost to third parties).

66. Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 422; Hansmann & Kraakman, *Property, Contract, and Verification*, *supra* note 65, at S403.

67. It is important not to overstate security interest laws' powers of recovery against third parties. *See* 11 U.S.C. § 362(a) (2012) (barring all recovery efforts against debtors that have filed for bankruptcy); U.C.C. § 9-609 (AM. LAW INST. & UNIF. LAW COMM'N 2010) (prohibiting self-help where it causes a "breach of the peace"); Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209, 1229 (2006) (noting practical limitations on recovery); Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 VA. L. REV. 1887, 1922 (1994) (discussing the long timeline of real property foreclosure laws). Moreover, self-help can also be replicated by other contractual means, such as leases. To use the example from Part I, C1 can purchase the Hawaii mall and then lease it to the owner. As in a secured transaction, the creditor pays a fixed sum and stands to recover a fixed sum unless the owner defaults, in which case the creditor owns the mall. Thus, if the owner ceases to pay, the lease is breached, and C1 can simply repossess the assets she already owns.

68. U.C.C. § 9-201(a).

69. Triantis, *supra* note 11, at 1138. The debt can continue to grow and yet benefit from the senior priority. U.C.C. §§ 9-204(c), 9-323(a) & cmt. 3. This is a strong deterrent to buying an asset subject to a lien. *See* Adler, *supra* note 61, at 78–79.

70. *See* Statute of 13 Elizabeth, 13 Eliz. 1, ch. 4 (1571) (Eng.); UNIF. FRAUDULENT TRANSFER ACT (UNIF. LAW COMM'N 2014); UNIF. VOIDABLE TRANSACTIONS ACT (UNIF. LAW COMM'N 2018); UNIF. FRAUDULENT CONVEYANCE ACT (UNIF. LAW COMM'N 2018).

insolvent.[71] True, rights granted by fraudulent conveyance law may be less intrusive to third parties than those granted by security interest law because they only disrupt bad-faith transfers or too-good-to-be true transactions. But this is only a difference in *degree* rather than a unique function of either entities or security interests.

To the degree that security interests provide creditors a more dependable claim against third parties who come to possess the collateral, this is best thought of as a detail of our account rather than a competitor to it. Security interests create fixed priority schemes, in which managers are not permitted to lower the relative status of a creditor as to certain collateral. Just as managers may not impair the rights of a secured creditor by promising another creditor higher priority, managers may not impair them by selling the assets free of liens and encumbrances. The fact that security interests "follow" property into the hands of third parties is an entailment of fixed priority. A rule fixing creditor priority against subsequent creditors fixes it against purchasers, a fortiori.

Likewise, it is not surprising that the remedy against shifting assets in entities is usually less exacting than that for security interests. When the manager has discretion to update the pool of creditors, it is harder to define the scope of the assets, and therefore it is more difficult to determine which asset transfers are detrimental to creditors. Conversely, when the assets are well defined (as is more likely when creditors have fixed priority), it is efficient to give the secured creditors a direct claim to the assets without a legal process that examines the motivation behind the transfer of those assets.

D. GOVERNANCE STRUCTURE

Entities typically require the appointment of dedicated decisionmakers and prescribe the duties and powers of such decisionmakers.[72] For example, corporations must appoint a board, and the board has fiduciary duties to the owners. Nonetheless, it is fairly easy to opt out of these rules, even in a standard corporation.[73] Moreover, entities, such as the general partnership and the member-managed Limited Liability Company ("LLC"), do not even have default centralized management or detailed governance provisions.[74]

71. UNIF. FRAUDULENT TRANSFER ACT (UNIF. LAW COMM'N 2014); UNIF. VOIDABLE TRANSACTIONS ACT (UNIF. LAW COMM'N 2018).

72. STEPHEN M. BAINBRIDGE, CORPORATION LAW AND ECONOMICS 29 (2002).

73. *See* DEL. CODE ANN. tit. 8, § 141(a) (2018) (allowing firms to confer the powers and duties of a board of directors on anyone provided in the charter).

74. *See, e.g.*, REVISED UNIF. PARTNERSHIP ACT § 401(f) (1997); DEL. CODE ANN. tit. 6, § 18-402 (2018).

Many financial structures exist in which entities are used as shells without any meaningful governance structure, and the management of assets within the entity is outsourced to an outside manager, for example, a mutual fund manager or a servicer of securitized loans.[75] Moreover, a security agreement could contractually provide for the appointment of a manager for the secured assets and specify the manager's duties and responsibilities. Accordingly, governance provisions can be constructed without an entity.

That said, governance structure is understandably more likely in entities. Asset pools with floating priority require management with discretion to update the priority of the creditors. It makes sense to impose on those managers some default set of duties to play their part in good faith. Detailed governance rules are less important for administering assets whose creditors have fixed priority because no updating is required.

E. LIMITED LIABILITY

Limited liability protects owners from the contract and tort claimants of the enterprise.[76] It is the most commonly cited benefit conferred by the use of legal entities.[77] In contrast, secured creditors typically have recourse to the unsecured assets of the owner.[78]

Nevertheless, limited liability is an imperfect distinction. First, an owner can obtain most forms of limited liability by simply bargaining for a waiver or non-recourse provision from creditors.[79] Second, limited liability is far from universal in entities. General partnerships (and general partners of limited partnerships) lack it altogether. Guarantees by individual owners or parent corporations, which effectively nullify limited liability, are pervasive across industries.[80] Moreover, limited liability does not apply to

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75. *See infra* Part IV.

76. Hansmann and Kraakman refer to it as defensive asset partitioning. Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 394; *see also* Hansmann et al., *Law and the Rise of the Firm*, *supra* note 8, at 1336.

77. *See generally* BAINBRIDGE & HENDERSON, LIMITED LIABILITY: A LEGAL AND ECONOMIC ANALYSIS (2016) (explaining the importance of limited liability); *The Key to Industrial Capitalism: Limited Liability*, ECONOMIST (Dec. 23, 1999), https://www.economist.com/finance-and-economics/1999/12/23/the-key-to-industrial-capitalism-limited-liability (praising limited liability).

78. U.C.C. § 9-608(a)(4), 9-615(d)(2) (AM. LAW INST. & UNIF. LAW COMM'N 2010) ("[T]he obligor is liable for any deficiency."). The parties can agree that C1 will have no recourse to A2, *id.* § 9-608 cmt. 3 ("The parties are always free to agree that an obligor will not be liable for a deficiency, even if the collateral secures an obligation . . . ."). However, American bankruptcy law gives secured parties the option of unsecured recourse to all the debtor's assets. 11 U.S.C. § 1111(b)(1)(A) (2012); *see also* Iacobucci & Triantis, *supra* note 8, at 529–32.

79. Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 429.

80. Casey, *supra* note 8, at 2722.

owners who personally control the business or when the entity's personnel act on the owner's behalf.[81] Some entities have some advantage in limiting liability to involuntary creditors who have no contractual relationship with the owner.[82] However, firms that have very few tort creditors (such as financial firms) nonetheless make extensive use of subsidiaries.[83] Even in industrial companies where torts could matter,[84] companies operated for hundreds of years without limited liability.[85]

Though the functional distinction of entities relative to security interests cannot boil down to limited liability, our theory nevertheless helps explain why entities often provide limited liability and security interests do not. Security interest-defined pools typically do not have managers; an owner actively managing the assets of such a pool is unlikely to be shielded by limited liability. Moreover, owners of an entity benefit more from limited liability because they would otherwise be liable for some unauthorized actions taken by the separate managers of the assets, who due to floating priority, have discretion to undertake a wide range of potentially risky transactions.

F. LEGAL PERSONALITY

Entity law confers separate legal personality on asset pools, which can then own assets in their own name, sue, and be sued. However, legal personality on its own does not serve a meaningful economic function. For example, legal personality allows Entity 1 to sue individuals who damage the Hawaii mall, but that same suit could have been brought by the owner if she owned the mall in her individual capacity (as in Figure 3).

Another variant of that argument is that the bankruptcy process cannot

81. *See* United States v. Bestfoods, 524 U.S. 51, 66–68, 70–71 (1998).

82. The advantage is only relative. Courts have allowed participants in reciprocal insurance schemes to limit their liability by contracts duly filed with the state insurance commissioner, even against non-consenting creditors. *See, e.g.*, Hill v. Blanco Nat'l Bank, 179 S.W.2d 999 (Tex. Civ. App. 1944); Wysong v. Auto. Underwriters, 184 N.E. 783, 788 (Ind. 1933). *See generally* Andrew Verstein, *Enterprise Without Entities*, 116 MICH. L. REV. 247 (2017) (discussing reciprocal insurance schemes and their role in limiting the need for entities to obtain liability protection).

83. *See* Dafna Avraham et al., *A Structural View of U.S. Bank Holding Companies*, 18 FED. RES. BANK OF N.Y. ECON. POL'Y. REV. 65, 72 (2012) (finding that seven bank holding companies own almost 15,000 subsidiaries).

84. *Cf.* Henry Hansmann & Reinier Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879 (1991) (questioning the desirability of limited liability for torts).

85. Peter Z. Grossman, *The Market for Shares of Companies with Unlimited Liability: The Case of American Express*, 24 J. LEGAL STUD. 63, 66 (1995); Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 430; Mark I. Weinstein, *Don't Buy Shares Without It: Limited Liability Comes to American Express*, 37 J. LEGAL STUD. 189, 191–92 (2008); Mark I. Weinstein, *Share Price Changes the Arrival of Limited Liability in California*, 32 J. LEGAL STUD. 1, 1–2 (2003).

attach to asset pools without legal personality.[86] Bankruptcy is arguably unique in that it collectively settles the claims of all creditors of the entity.[87] However, there is an equivalent process that can be applied to security interests: receivership. A receiver appointed following a motion by secured creditors may take control of some or all of a debtor's assets.[88] The priority of claims in a receivership proceeding is similar to that applied in bankruptcy.[89] Although unsecured creditors generally do not take an active role in the receivership, they may be parties to receiverships,[90] and the receiver must protect their interests.[91] Thus, the law provides security-based pools a functionally similar process to that which is based on legal personality.

While legal personhood cannot serve as the functional distinction, it nevertheless makes sense for entities to have personhood because personhood is often useful for asset pools with a dedicated management. It makes less sense to sue an asset pool in its own name if the manager is also the owner of that pool, as in a typical security interest partition. Likewise, there is little gained by letting an asset pool sue in its own name if it is managed by an owner who is already able to sue in her own name. On the other hand, it likely most efficient to allocate the power to sue in the name of assets to entities, as they typically have dedicated management that is best positioned to deploy and protect the assets.

G. BANKRUPTCY PROTECTION

Although entities and security interests perform the same asset partitioning role, it may be argued that entities have the additional advantage of bankruptcy protection.[92] If an entity's owner becomes insolvent, the

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86. Casey, *supra* note 8, at 2719–20; Iacobucci & Triantis, *supra* note 8, at 533.

87. *See* Douglas G. Baird, *The Uneasy Case for Corporate Reorganizations*, 15 J. LEGAL STUD. 127, 127 (1986); Thomas H. Jackson, *Bankruptcy, Non-Bankruptcy Entitlements, and the Creditors' Bargain*, 91 YALE L.J. 857, 857 (1982).

88. 75 C.J.S. Receivers §§ 16, 44 (2018); Receiverships, 4 I.R.M. § 5.17.13.10 (2017). Secured creditors generally file for receivership to prevent collateral from decreasing in value or to avoid repossession. Mary Jo Heston, *Alternatives to Bankruptcy: Receiverships, Assignments for Benefit of Creditors, and Informal Workout Arrangements*, 2009 WL 4052825, at *5.

89. Andrew C. Kassner & Howard A. Cohen, *Anything but Bankruptcy!: ABCs, Receiverships and Other Alternatives*, 080405 AM. BANKR. INST. 239 (2005).

90. Heston, *supra* note 88, at 5; *see also* 75 C.J.S. Receivers § 16 (without a judgment, general and contract creditors typically cannot initiate receiverships).

91. Gary Marsh & Caryn E. Wang, *Bankruptcy Versus Receivership—Unsecured Creditors*, *in* STRATEGIC ALTERNATIVES FOR AND AGAINST DISTRESSED BUSINESSES § 12:18 (2018). Note that although bankruptcy provides for the creation of an unsecured creditors' committee, receivership does not provide this option. *Id.*

92. Douglas G. Baird & Anthony Casey, *No Exit? Withdrawal Rights and the Law of Corporate*

owner's personal creditors cannot usually force bankruptcy or liquidation of the entity's assets; at best, they can take the owner's ownership interests over the entity. In entity structures like those in Figure 2, C2's collateral is unaffected if the Hawaii mall goes bust. In contrast, the unsecured creditors of an owner can drag the secured assets into liquidation by filing for the bankruptcy of the owner. In Figure 3, C1 could force the owner into bankruptcy along with all her assets, such as the Oklahoma mall. So C2 must evaluate the financial health of the owner and the viability of the Hawaii mall, rather than just the Oklahoma mall.

Nonetheless, we believe that bankruptcy protection cannot serve as the distinction between security interests and entities. First, we believe that it is not accurate to say that entities provide bankruptcy *protection*.[93] Rather they provide what practitioners call "bankruptcy *remoteness*."[94] Entities may make the risk more remote, but there are many circumstances under which one entity is drawn into another's bankruptcy. For instance, the sale of the receivables might be recharacterized as a loan or a security interest, in which case the assets would not be protected from bankruptcy.[95] The bankruptcy process can be extended to include a set of entities that operate as a group under the doctrine of substantive consolidation.[96] In fact, most public corporations run their various businesses in a way that makes consolidation almost inevitable.[97] Even in a securitization, there is a risk that solvent

Reorganizations, 113 COLUM. L. REV. 1 (2013), Casey, *supra* note 8, and Hansmann & Kraakman, *Essential Role*, *supra* note 8 all refer to this as liquidation protection.

93. *Cf.* Steven L. Schwarcz, *The Conundrum of Covered Bonds*, 66 BUS. LAW. 561, 567 n. 43 (2011) (noting sources that distinguish between bankruptcy "remoteness" and bankruptcy "segregation").

94. Gorton & Metrick, *supra* note 1, at 1300; Schwarcz, *supra* note 1, at 135.

95. *See In re* LTV Steel Co., 274 B.R. 278, 280–81 (Bankr. N.D. Ohio 2001); Ayotte & Gaon, *supra* note 18, at 7 (finding a twenty-five to twenty-nine basis point price reduction for bankruptcy remote instruments following the *LTV* decision, which reduced bankruptcy remoteness for many instruments). There have been state law legislative efforts to reduce these risks. *See* Steven L. Schwarcz, *Securitization Post-Enron*, 25 CARDOZO L. REV. 1539, 1546–49 (2004). However, a proposed amendment to the federal bankruptcy code (Section 912 of the Bankruptcy Reform Act) was not enacted, leaving the risks appreciable.

96. Courts often undermine bankruptcy-remote structures or consolidate superficially separate subsidiaries, even when tidier structures are used. Douglas G. Baird, *Substantive Consolidation Today*, 47 B.C. L. Rev. 5, 5 (2005); William H. Widen, *Corporate Form and Substantive Consolidation*, 75 GEO. WASH. L. REV. 237, 239 (2007) (finding that half of all large public company bankruptcies involve substantive consolidation by court order or settlement). *See generally* Dennis J. Connolly, John C. Weitnauer & Jonathan T. Edwards, *Current Approaches to Substantive Consolidation: Owens Corning Revisited*, 2009 NORTON'S ANN. SURV. BANKR. L. 2 (providing a laundry list of factors courts use in determining whether substantive consolidation is appropriate). Even solvent subsidiaries can be drawn into the bankruptcy process and subjected to substantive consolidation. *See, e.g.*, Kapila v. S & G Fin. Servs., LLC (*In re* S&G Fin. Servs. of S. Fla., Inc.), 451 B.R. 573, 579–82 (Bankr. S.D. Fla. 2011).

97. Even in the context of securitizations, where the goal is to isolate the assets from the sponsor corporation, sponsors have strong incentives to bail out their SPEs if the assets are not performing. Thus,

entities will be impaired by a bankrupt owner. Indeed, this is what happened in the highly publicized *In re General Growth Properties Inc.* case,[98] on which our figures throughout the paper are based.[99] In that case, the court drew solvent entities (each owning different shopping malls) into the bankruptcy proceedings of their owner (a real estate investment company).[100] General Growth filed for bankruptcy along with a number of its special purpose entities ("SPEs"), some of which were still performing.[101]

Just as entities' bankruptcy protection is not absolute, security interests' protection is not trivial,[102] especially for financial transactions that can be structured to take advantage of foreign law.[103] Under English law before 2002, and even after 2002 for certain transactions, holders of a specific type of security interest called the floating charge have the right to effectively block the bankruptcy (called the "administration" in the U.K.) of a company.[104] Instead, the senior creditor may appoint an administrative receivership, under which the security is protected and payments continue even as junior creditors' claims are addressed. These expansive rights protect one pool from liquidation despite the owners' financial difficulties.

Citigroup, JPMorgan and Bank of America all bought billions of dollars' worth of securitized assets from their SPEs when those assets failed to perform, even though they had no legal obligation to do so. Francesco Guerrera & Saskia Scholtes, *Banks Come to the Aid of Card Securitisation Vehicles*, FIN. TIMES (June 25, 2009), www.ft.com/content/bcf1769c-60ee-11de-aa12-00144feabdc0; *see* Henry Hansmann & Richard Squire, *External and Internal Asset Partitioning: Corporations and Their Subsidiaries*, *in* THE OXFORD HANDBOOK OF CORPORATE LAW AND GOVERNANCE 17 (Jeffrey N. Gordon & Wolf-Georg Ringe eds., 2016); *cf.* Casey, *supra* note 8, at 2721–22 (noting the extensive use of cross guarantees but offering an efficiency explanation for it).

98. *See generally In re* Gen. Growth Props. Inc., 409 B.R. 43 (Bankr. S.D.N.Y. 2009).

99. The mall example from Figure 2 is drawn from the General Growth bankruptcy. *See generally id.*

100. General Growth is essentially a securitization vehicle funded by numerous SPEs; we discuss securitization in more detail in Section IV.A.

101. Nonetheless, it is important to emphasize that the court did not consolidate the SPEs and seems to have respected the priorities of the bondholders. *In re* Gen. Growth Props., Inc., 409 B.R. at 69. We discuss SPEs in greater detail *infra* Section IV.A.

102. In addition, regulatory regimes may also protect asset pools from liquidation. Reciprocal insurance companies have long operated as a nexus of contract without any corporation at the core, in part because insurance regulation often bars creditors from initiating liquidation procedures. *See* Verstein, *supra* note 82, at 283 (describing how exclusive commissioner control over liquidation preserves other insurance enterprises without entities).

103. *See generally* Charles W. Mooney, Jr., *Choice-of-Law Rules for Secured Transactions: An Interest-Based and Modern Principles-Based Framework for Assessment*, 22 UNIF. L. REV. 842 (2017) (offering a framework for assessing choice-of-law rules for secured transactions).

104. Goode, *supra* note 58, at 315–77. When an application for administration is made, the holder of the floating charge is legally entitled to notice, and he can use the notice period to step in and appoint an administrative receiver. The appointment of an administrative receiver precludes the appointment of the administrator, and the administrative receiver has a duty to continue to operate the assets for the benefit of the charge holder.

Covered bonds—another instrument widely used in Europe—provide significant bankruptcy protection without meaningful use of an entity.[105] Covered bonds are similar to secured bonds, granting the creditors priority over obligations that remain on the balance sheet of the issuer. However, covered bonds also enjoy bankruptcy remoteness from the issuer.[106] The other creditors of the issuing entity do not get to interrupt payments to the covered bond in the event of insolvency. Covered bonds achieve this bankruptcy remoteness by way of enabling statutes, rather than by relying primarily on entities.

Moreover, bankruptcy protection is material only when the bankruptcy process disrupts the pre-existing priorities to the asset pools. The bankruptcy process does not necessarily harm the interests of secured creditors. Typically, secured creditors must be paid in full before any unsecured creditors may be paid anything at all,[107] they may be compensated for disruptions due to the bankruptcy process,[108] and senior creditors exercise significant control over the bankruptcy process.[109] To the degree that bankruptcy is disruptive to asset partitioning, this may be a contingent feature of recent American law,[110] rather than an enduring feature.[111] Indeed,

105. In some jurisdictions, practical considerations or the inadequacies of enabling legislation still result in the creation of a separate entity. Steven L. Schwarcz, *Securitization, Structured Finance, and Covered Bonds*, 39 J. CORP. L. 129, 143 (2013).

106. Schwarcz, *supra* note 93, at 567.

107. 11 U.S.C. § 1129(b)(2) (2012) (barring confirmation of a plan in deviation of absolute priority); *see* Czyzewski v. Jevic Holding Corp., 137 S. Ct. 973, 979 (2017).

108. The Bankruptcy Code provides adequate protection to secured creditors, such as cash payments. *See, e.g.*, 11 U.S.C. § 361; *In re* Coker, 216 B.R. 843, 849 (Bankr. N.D. Ala. 1997); *see also* 11 U.S.C. § 506(b) (providing post-petition interest payments to over-secured creditor).

109. *See* Douglas G. Baird & Robert K. Rasmussen, *Antibankruptcy*, 119 YALE L.J. 648, 675–76 (2010).

110. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 421 (calling entities advantage in bankruptcy remoteness "relatively modest" and "an artifact of the weakness of U.S. bankruptcy law . . . ."). For example, *United Savings Association of Texas v. Timbers of Inwood Forest Associates, Ltd.*, 484 U.S. 365 (1988) held that secured creditors are not owed interest payments as a result of delayed foreclosure on collateral due to the automatic stay. Creditors increasingly sought bankruptcy protection in light of this decision, but it is hardly an inevitable feature bankruptcy system.

111. The rights of secured parties were even stronger prior to the 1978 reform of the Bankruptcy Code; if the collateral was an important asset, a secured creditor could effectively forestall a reorganization. James J. White, *Death and Resurrection of Secured Credit*, 12 AM. BANKR. INST. L. REV. 139, 142 (2004). Although the automatic stay prevented secured creditors from repossessing collateral, no other rights of secured creditors could be impaired. *Id.* While the debtor had greater rights to interfere with secured creditors' claims under chapter X of the 1898 Act, few companies went into chapter X. *Id.* Before the 1898 Act was amended in the 1930s, secured creditors could in principle also repossess the assets in the course of bankruptcy proceedings. *See generally* Patrick A. Murphy, *Restraint and Reimbursement: The Secured Creditor in Reorganization and Arrangement Proceedings*, 30 BUS. LAW. 15 (1974). To be sure, the bankruptcy court does have the power to protect by injunction its jurisdiction of the property of the bankrupt. *Id.* at 18.

it is possible that what partly motivated the emergence of securitization transactions in the 1980s, as an alternative to standard secured lending, is the contraction of the rights of secured creditors in bankruptcy following the 1978 Act to the benefit of unsecured creditors.[112]

Finally, it is worth noting that not all entities offer bankruptcy protection, so the defining feature of an entity cannot be bankruptcy protection. Creditors of a bankrupt partner in a partnership have the power to force liquidation and winding-up (which is equivalent to a bankruptcy) of the partnership by foreclosing on the partner's interest in the partnership.[113]

While bankruptcy protection does not prove an adequate basis to distinguish these bodies of law, it is somewhat easier to obtain it with entities than security interests. Why? Unlike the other candidate distinctions above, we believe that the policy reasons behind this are questionable.[114] We address this issue below in Part V.

IV. EXPLAINING THE STRUCTURE OF FINANCIAL PRODUCTS

With the growth in financial innovation, segregating asset pools is a common objective of many financial products. We focus on three areas of financial innovation that have experienced substantial growth in recent decades: securitization, captive insurance, and mutual funds. The basic choice business planers face in creating these asset pools is whether to place them in separate entities or simply give creditors a security interest over these assets. These two options are depicted in Figures 7 and 8.

112. White, *supra* note 111, at 142, 149. The 1978 revisions to the bankruptcy code embody a preference for reorganization over liquidation in order to preserve debtor firms. *Id.* at 139–40.

113. REVISED UNIF. P'SHIP ACT § 801(6) (amended 1997), 6 U.L.A. 103 (Supp. 2000); UNIF. P'SHIP ACT § 32(2), 6 U.L.A. 804 (1995). We note though that the creditors of the partnership itself have priority over the partner's creditors in the assets. REVISED UNIF. P'SHIP ACT § 807(a). *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 394–95; Hansmann et al., *Law and the Rise of the Firm*, *supra* note 8, at 1137–39.

114. *See* Hansmann & Kraakman, *Essential Role*, *supra* note 8, at 421 (referring to the disregard for the priorities of security creditors in bankruptcy as a "weakness of U.S. bankruptcy law").

FIGURE 7. Entity Partitioning

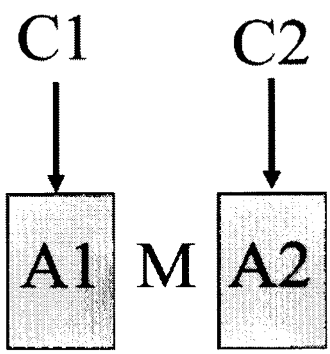
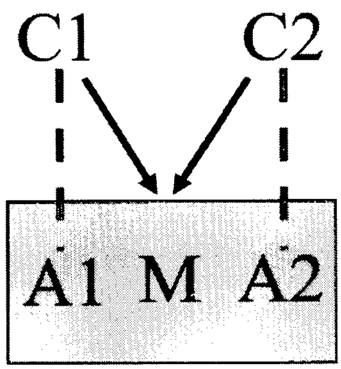


FIGURE 8. Security Interest Partitioning



In essence, this choice is substantially the same as the choice faced by the owner in regards to her shopping malls as we discussed above in Figure 2 and Figure 3. The main difference is that with the professionalization and standardization of these products, the assets are often managed by a distinct management company and are not necessarily owned by the originator of the assets as in the case of the owner's shopping malls. We have also removed the pictures (of malls) so that Figures 7 and 8 can better capture the common structure in numerous structures, from securitized operating companies to insurance to investment funds.

These areas all involve the use of numerous entities, largely as a form of security interest. The proliferation of entities in these products thus might seem to lend support to the view that entities serve the same function as security interests, and the two forms are functional substitutes.

However, as we show below, in all these financial products, the key structural element is actually a security interest or other law that essentially fixes the priority of the creditors. Without fixed priority, these products would not be viable. The main reason entities are typically used in these structures is because in the United States, security interests are not bankruptcy remote; much recent financial innovation reflects a frustration with this feature. In Part V, we will discuss how even more recent innovations such as protected cell regimes attempt to address this deficiency in security interests.

A. SECURITIZATION

In a securitization, the sponsor corporation sets aside a pool of assets.[115] The company sells those assets to a newly formed special purpose entity ("SPE").[116] The SPE raises the purchase money by issuing bonds commonly known as asset-backed securities (ABS, or MBS when the asset is a mortgage). Many companies use securitization as their principal mode of financing. We return here to the notable example of General Growth Properties. General Growth owned numerous SPEs, which held shopping malls financed by loans and bonds. Each SPE owned one shopping mall (or a group of them), and the parent entity essentially acted as a management company that specialized in securitizing the assets. The structure was described in Part I, Figure 2, and it is essentially the same structure depicted in Figure 7, except that the SPEs are not necessarily owned by the originator of the assets, but may be independent of it.[117]

The economic rationale for securitization is that the notes are supposed to be informationally insensitive, or safe,[118] so that the noteholders' costs of evaluating and monitoring the assets are low. This is reflected in the nature of the assets, which are supposed to have predictable cash flows and homogenous risk. There is limited value in managerial discretion at the SPE level, as the SPE is not an operating company.

115. For general descriptions, see generally *Special Purpose Entity (SPE/SPV) and Bankruptcy Remoteness*, *in* 5 LAW OF DISTRESSED REAL ESTATE § 56 (2018); Gorton and Metrick, *supra* note 1, at 1–70; Schwarcz, *supra* note 1, at 135.

116. The SPE may be formed as any entity; usually it will be a business trust, LLC, or limited partnership, mainly for tax reasons.

117. These SPEs may even be owned by nonprofit corporations whose function is to facilitate the securitization transaction.

118. *See* TRI VI DANG, GARY GORTON & BENGT HOLMSTRÖM, THE INFORMATION SENSITIVITY OF A SECURITY (2015), www.columbia.edu/~td2332/Paper_Sensitivity.pdf.

Securitization practitioners take many steps to ensure low evaluation costs and low managerial discretion. The SPE's organizational documents and the terms of thc notes limit the SPE's activities to holding the assets and making payments on the notes; managers are not permitted to incur any other debt or pledge the assets to secure the debt of another firm.[119] In the case of *General Growth*, for example, each SPE held a shopping mall, but the SPE's board had no discretion to buy more assets, or issue debt at its own discretion; rather, management is outsourced to a management company that simply collects the income and rents out the shops.[120]

However, as discussed above, these contractual provisions, including those set in the SPE's organizational documents, are insufficient because they are not binding on third parties.[121] Thus, it is crucial for the bondholders to have a security interest in the receivables and, without exception, bondholders in all securitizations *do* receive a security interest in the assets. The security interest is typically held by an indenture trustee on behalf of the bondholders.[122] This ensures that the bondholders have a fixed priority to the assets. If the SPE issues more debt, that debt will be automatically subordinated to the claims of the original noteholders. If the bondholders had only floating priority with respect to the assets, the SPE would be able to add more creditors with equal priority to the noteholders.

If fixed priority is the goal, why use a special entity? It is not as though the entity is doing "real" work; the entire structure is intended to strip all operational control from the SPEs managers. Nor is it costless to use entities. Each entity has to satisfy the relevant securities regulations, including the filing of a separate prospectus.[123] Parties are willing to bear these costs because entities are "bankruptcy remote."[124] Bankruptcy remoteness, like fixed priority, is important for creating informationally insensitive notes, and empirical evidence suggests that it is priced into the value of the notes on the

119. *Impact of Bankruptcy on Real Estate Transactions*, *in* 2 LAW OF REAL ESTATE FINANCING § 13:38 (2018).

120. Mesterharm Declaration, *supra* note 22, at 5–6.

121. *Supra* Section II.A.2.

122. This is presumably a mechanism to reduce the costs of filing notices required under Article 9 of the UCC to assign the security interests with respect to each bondholder when the notes are sold in the secondary market.

123. *See* 17 C.F.R. § 230.190 (2018). These costs are particularly high in the context of note programs that include multiple issuances of bonds with largely identical terms and managed by the same management company, yet each backed up by a separate pool of assets. NIGEL FEETHAM & GRANT JONES, PROTECTED CELL COMPANIES: A GUIDE TO THEIR IMPLEMENTATION AND USE 20–23 (2d ed. 2010).

124. Again, we emphasize that bankruptcy protection through the use of entities is not guaranteed. *See supra* Section III.G.

market.[125] When the same company manages many different securitization vehicles, the bondholders in one issuance (represented by C1 in Figure 7 and Figure 8) must ensure that the bondholders in the other issuances (i.e. C2) will not be able to drag the pledged assets (i.e. A1) into the bankruptcy of the management company. Because each pool of assets is held by a separate entity, there is less likelihood that it will be included in the bankruptcy of the management company.[126]

If security interests in the United States were bankruptcy remote, there would be no reason to use entities in this process.[127] In this case, the informational efficiencies could be achieved with mere security interests, as in Figure 8. In fact, a type of securitization called whole business securitizations, which is common in England, achieves bankruptcy remoteness without meaningful use of an entity. Rather, it relies on a form of security interest known as the floating charge, which enjoys bankruptcy protection.[128] In this type of securitization, the securitized assets are not transferred to a bankruptcy-remote SPE, but stay with the company.[129] The bondholders are protected from the bankruptcy of the sponsor corporation because due to the floating charge, they indirectly have the right to appoint an administrative receiver and take control of the assets if an unsecured creditor or the company applies for administration (the English equivalent for bankruptcy).[130] The administrative receivership procedure is designed to ensure that the securitized assets continue to operate for the benefit of the creditors, even if the business becomes bankrupt.

There are other examples of security interests thriving with bankruptcy protection, even without an essential link to entities. "Covered bonds" have been much touted as a safer alternative to securitization.[131] Covered bonds

125. *See* Ayotte & Gaon, *supra* note 18, at 1299–1335 (finding a pricing premium for bankruptcy remote instruments).

126. Though note that, as discussed in Section III.G, in *In re General Growth Properties, Inc.*, 409 B.R. 43 (Bankr. S.D.N.Y. 2009), the assets of the SPEs were all included in bankruptcy of the parent company.

127. Entity-based securitization became popular only in the 1980s following the general weakening of security-based rights in bankruptcy. *See* White, *supra* note 111.

128. *See supra* notes 102–04 and accompanying text.

129. Typically, these are business that have predictable cash flows, like pub companies. *See* Claire A. Hill, *Whole Business Securitization in Emerging Markets*, 12 DUKE J. COMP. & INT'L L. 521, 526 (2002).

130. In practice, a SPE *is* actually formed, but its function is to hold the security interests, including the floating charge, on behalf of the creditors, but its function is purely to coordinate among bondholders. An SPE acts as administrator of the claims and collects payments, but because the assets are not transferred to the SPE, it is not necessary for ensuring the assets are bankruptcy remote.

131. *See, e.g.*, Kathryn Judge, *Fragmentation Nodes: A Study in Financial Innovation, Complexity, and Systemic Risk*, 64 STAN. L. REV. 657, 716 (2012).

are widespread in Europe,[132] and they amount to secured bonds except that they possess appreciable protection from the bankruptcy of the issuer.[133] For financial institutions, this protection is granted by legislative fiat.[134] With this protection, entities are not crucial to the asset partitioning effort. However, statutory covered bonds are usually only issued by financial institutions. When issued by other companies, they face the same obstacles as we described in Part II and make use of entities for the same reasons.

This demonstrates that a security interest that has fixed priority and bankruptcy remoteness could in theory obviate the need for entity-based asset partitioning in securitizations. The fact that entities are substantially absent when security interests suffice further supports the claim that entities are being used only incidentally, as part of a strategy to ensure that fixed priority is maintained in the event of a bankruptcy.

B. CAPTIVE INSURANCE

Captive insurance is a form of self-insurance, whereby a firm sets aside reserves in order to pre-fund a specific risk, such as product liability, professional liability, or health insurance.[135] Self-insurance is typically used when a firm has homogeneous risk exposures, such that its aggregate, expected losses are reasonably stable and predictable. It is generally cheaper than standard insurance, mainly because the insurance can be better tailored to the needs of the insured, as opposed to standard insurance that reflects industry risk.[136]

In theory, firms can self-insure simply by saving up a reserve fund, but

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132. Steven L. Schwarcz, *Securitization, Structured Finance, and Covered Bonds*, 39 J. CORP. L. 129, 142 (2013) ("By the end of 2008, the amount of covered bonds outstanding in Europe alone was approximately €2.38 trillion, up from €1.5 trillion in 2003.").

133. Schwarcz, *supra* note 93, at 567.

134. *See* Steven L. Schwarcz, *Ring-Fencing*, 87 S. CAL. L. REV. 69, 74–75 (2014).

135. For background on captive insurance, see generally JAY D. ADKISSON & CHRIS M. RISER, ASSET PROTECTION: CONCEPTS & STRATEGIES FOR PROTECTING YOUR WEALTH (2004); JAY D. ADKINSSON, ADKISSON'S CAPTIVE INSURANCE COMPANIES: AN INTRODUCTION TO CAPTIVES, CLOSELY-HELD INSURANCE COMPANIES, AND RISK RETENTION GROUPS (2006); LUKE IKE, RISK MANAGEMENT & CAPTIVE INSURANCE (2016); F. HALE STEWART & BECKETT G. CANTLEY, U.S. CAPTIVE INSURANCE LAW (2d ed. 2015); PETER J. STRAUSS, THE BUSINESS OWNER'S DEFINITIVE GUIDE TO CAPTIVE INSURANCE COMPANIES: WHAT YOU NEED TO KNOW ABOUT FORMATION AND MANAGEMENT (2017) (outlining fundamentals and benefits of captive insurance for business owners); Daniel Schwarcz & Steven L. Schwarcz, *Regulating Systemic Risk in Insurance*, 81 U. CHI. L. REV. 1569, 1624–26 (2014).

136. A commercial insurance company would charge higher premiums to cover the risks and substantial reserves would have to be held against these risks. This business rationale is similar to the rationale for mutual insurance companies. *See* Henry Hansmann, *The Organization of Insurance Companies: Mutual Versus Stock*, 1 J.L. ECON. & ORG. 125, 148–49 (1985).

without creating a separate pool of assets. However, when the funds remain under the discretion of the insureds, potential claimants and regulators will not view the reserve as being credibly committed to funding the identified risk.[137] One way to improve the credibility of self-insurance is to form captive insurance companies. The insured firm will set up a separate entity-subsidiary (a "captive") with capital from the insured. This capital, along with the insurance premium, is used to satisfy potential claims.[138] The management of the subsidiary-entity is contracted out to an insurance management company, which manages many of these entities on behalf of the insureds.

This structure is basically the same as that depicted in Figure 7, in that the assets pledged to the creditors—that is, the insureds—are placed in separate entities. Similar to securitizations, the assets that the management company manages are partitioned such that each creditor—that is, the insured—has a priority in his reserve funds over other creditors of the insurance management company.

But, as in securitizations, the use of entities just to partition the assets is not sufficient. One problem with a purely entity-based approach is that entities create floating priority, but insurance customers need fixed priority. There is little value here to managerial discretion since the insured just wants the money safely held for a rainy day, rather than deployed to seek business opportunities. Nor do captive insurance creditors wish to incur any costs in monitoring the use of the assets by the captive insurance company.

To create this fixed priority, the insured needs to have a security interest in the assets of the captive insurance entity, which gives the insured priority over those assets.[139] Moreover, each of the captive entities must be a licensed insurance company, which is typically subject to numerous regulatory restrictions on its ability to incur any indebtedness. For example, under Delaware captive insurance regulation, the captive company is not permitted to incur material debts, make material loans or extensions of credit without regulatory approval, or enter into major transactions without regulatory approval.[140] These limitations, together with a security interest, would

137. CHRISTOPHER L. CULP, STRUCTURED FINANCE AND INSURANCE: THE ART OF MANAGING CAPITAL AND RISK 524–25 (2006).

138. Due to local regulation, there may also be a need for a local insurer, called a fronting insurer, to collect the premiums and transfer them to the captive entity.

139. There are various provisions in the organizational documents of the captive and the insurance policy with the insured which impose restrictions on the use of the assets by the captive entity. But as discussed in Section II.A, these provisions are not sufficient to bind third parties.

140. DEL. CODE ANN. tit. 18, § 6922(3)–(4) (2018).

appear to fix the priority of the insured to the assets of the captive entity.

But again, if security interests and regulatory restrictions already achieve fixed priority, why do we need entities? For example, the insurance management company could simply own each reserve account on behalf of the insureds and each insured would have a security interest in its account (see Figure 8). In fact, some captive insurance companies have used this structure in order to avoid obtaining a separate insurance license for each entity.

However, without entities, the captive might not be adequately protected from the bankruptcy of the insurance management company. In particular, there would be a risk that claims by other insureds could render the management company insolvent and effect the liquidation of all the captives.[141] The fact that the management company promised C1 priority recourse against A1 (the contents of its cell) is not necessarily binding on C2, or any other creditors of the management company.

Insurance management companies have tried to avoid the costs of setting up separate entities to save the fees for insurance licenses while overcoming the limitations on a security interest approach by creating "rental captives."[142] In rental captives, the management company issues each insured non-voting preference shares, and the proceeds of the issue are allocated to a specific account, which is also known as a "contractual cell." Under the insurance policy, the insured is limited to claiming only from the segregated funds in the relevant account. The insured also has a security interest over his account.[143] Moreover, the insured as a preference shareholder in the insurance company enters into a shareholder agreement that (1) specifically limits claims to its respective fund, (2) states that the insured will have no recourse to any other company assets or the funds of other insureds, and (3) provides that such limitations also apply in the liquidation of the captive insurance company.[144]

141. There are other ancillary drawbacks to using only security interests. Security interests in the funds typically require a clear definition of the secured assets, U.C.C. § 9-108 (2008), and control by the insured, *id.* §§ 9-104, 9-327. Although perfection by control is common, the UCC does not allow perfection through control by third parties, and complications may arise when the account is subject to a security interest by more than one creditor. *See* Rene Ghadimi, *Common Mistakes Under the UCC*, SECURED LENDER, May–June 2009, at 35–38, https://files.skadden.com/sites%2Fdefault%2Ffiles%2Fpublications%2FPublications1803_0. Moreover, in some jurisdictions, security interests in deposit accounts are not permitted. *See* DELOITTE LEGAL, GUIDE TO CROSS-BORDER SECURED TRANSACTIONS *passim* (2013), www2.deloitte.com/content/dam/Deloitte/global/Documents/Legal/dttl-legal-international-guide-to-secured-transactions-2014.pdf.

142. *See* FEETHAM & JONES, *supra* note 123, at 7–10.

143. *Id.* at 14.

144. *Id.* at 8–10.

Through this contractual arrangement, insurance management companies effectively tried to create bankruptcy remoteness without entities. However, this structure faces the same challenges we described in Part II. It essentially requires monitoring by each insured to make sure that the insurance company enters into similar arrangements with all other insureds—otherwise the other insureds could potentially file for the bankruptcy of the company or make claims to assets outside their segregated accounts. Moreover, there remains uncertainty whether in a bankruptcy of the insurance company, the bankruptcy court would respect the security interests of each insured and the relevant contractual limitations.

As in the case of securitizations, security interests with bankruptcy remoteness would make entities redundant in this structure. In fact, as we discuss in Part V, the contractual cells served as the basis for protected cell legislation, which largely addressed the deficiencies of the contractual approach, and provided effective bankruptcy remoteness to the cells.

C. MUTUAL FUNDS

Mutual funds are pools of investment securities that issue only redeemable common stock, which is sold widely to the public and is composed entirely of debt or minority equity holdings in many companies. A unique feature of mutual funds is that the shareholders in these funds cannot sell their shares, but they can always redeem their shares for cash equal to their pro rata share of the net asset value of the fund.[145] Mutual funds must register with the SEC and are regulated by the Investment Companies Act of 1940 ("ICA").[146] We will focus on open-ended funds, the most common type of mutual funds. The typical structure is for each fund to be formed as an entity, as in Figure 8. The management of all these entities is outsourced to a separate fund management company that manages the investments made by many funds, as with securitizations and captive insurance.[147]

Previous literature has emphasized the use of entities for creating mutual funds.[148] However, the organization and regulation of mutual funds effectively creates fixed priority. The ICA prescribes that such funds can

145. John D. Morley & Quinn Curtis, *Taking Exit Rights Seriously: Why Governance and Fee Litigation Don't Work in Mutual Funds*, 120 YALE L.J. 84, 88 (2010).

146. John D. Morley, *The Regulation of Mutual Fund Debt*, 30 YALE J. ON REG. 343, 346 (2013).

147. Henry Hansmann & Ugo Mattei, *The Functions of Trust Law: A Comparative Legal and Economic Analysis*, 73 N.Y.U. L. REV. 434, 438–39 (1998); John Morley, *The Separation of Funds and Managers: A Theory of Investment Fund Structure and Regulation*, 123 YALE L.J. 1228, 1238–39 (2014).

148. Hansmann & Mattei, *supra* note 147; Morley & Curtis, *supra* note 145.

only issue common shares and not senior debt securities, and that they can only take out loans from banks if the ratio of net assets to bank-loan principal is equal to or exceeds 3:1.[149] Thus, although mutual funds can take on some debt, the only true creditors of the funds are essentially its equity investors, and they are for the most part the only claimants on the fund's assets. These investors have the same priority—that is, they each have a claim on their pro rata share. The fund cannot issue any other shares that rank higher to them. In fact, the fund cannot issue shares that rank equally to the current investors in their pro rata share. If the fund issues new shares, the new investor has to contribute additional funds, as each investor maintains his or her claim to his or her share of the net asset value of the fund.[150]

The explanation for creating this fixed priority is essentially to lower the evaluation costs for the investors.[151] As is well known, most households now hold a substantial portion of their assets in mutual funds. These investors tend to be very passive and rarely, if ever, engage in any active monitoring or lawsuits.[152] If the fund is underperforming, these investors often just exit by redeeming their shares and possibly buy shares in another fund. If mutual funds had floating priority by allowing the managers to freely issue debt instruments, the investors would need to monitor more carefully, because such issuances would have priority over common equity, and shareholders would be at a risk of losing their pro rata share of the net asset value.

If investors want fixed priority, then why conjure up an entity for each investment fund? The management company could in principle hold all the securities in the name of a single entity, give the investors in each fund a security interest,[153] and require investors to enter into a contract that

149. 15 U.S.C. § 80a-18(f)(1) (2012).

150. A new investor has to contribute new capital and, at the time of the investment, is entitled only to that capital. Of course, the value of the pro rata share of the new investor (as well as other investors) can fluctuate, but the investor's priorities remain fixed.

151. The second indicator of priority type—the value of managerial discretion—is more equivocal for funds. On the one hand, actively managed funds are chosen in large part because their managers' discretion is deemed valuable. On the other hand, research on actively managed funds reveals this to be largely unjustified. Many investors therefore put their money in passive funds, where manager discretion is not valued. Either way, the assets in the funds are marketable securities with very little going concern value. The managers' ability to create value greater than the sum of its parts may be valuable in industrial companies but not in funds.

152. Morley & Curtis, *supra* note 145, at 119. In contrast, investors in closed-end funds, who have no discretion to withdraw their investment at any time, tend to be more active in monitoring the fund managers. The fund also has greater latitude in issuing different classes of stock and bonds. Investors in those funds tend to be more sophisticated, and hence it makes sense for the priorities in these funds to be less fixed.

153. Similar to securitizations, the security interest can be in the name of an agent on behalf of

segregates the assets of each fund.[154] This structure, which is essentially the one depicted in Figure 8, would have the benefit of saving the transaction costs of setting up new entities, including duplication and expense resulting from multiple boards, contracts with service providers, and regulatory filings.[155]

The main purpose for using entities to form funds is bankruptcy remoteness.[156] Each fund's investors need to be assured that their fund will not be affected by the claims of other funds' investors and other creditors of the fund managers. As with captive insurance, it may in theory be possible to require the investors to enter into a multi-lateral contract, whereby each agrees to limit the liability of the management company to the assets in the relevant fund account. But again, there is no guarantee that the security interest and contract would be respected in a bankruptcy of the management company. Furthermore, the investors in each fund would always need to be alert to the creation of additional funds by the manager and get assurance that the new funds are subject to the same limitations on liability. Accordingly, without security interests that have bankruptcy remoteness, it is much easier to use entities to create mutual funds.

V. THE EVOLUTION OF NEW LEGAL FORMS

The purpose of many financial products is effectively to give fixed priority to a group of creditors. Security interests provide fixed priority, but they must be alloyed with entities because security interests do not adequately protect pools from the owner's bankruptcy. If security interests developed to allow bankruptcy remoteness, they could supplant the role that entities play in these structures. In fact, recent legal innovations appear to be specifically designed to address this void.

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investors in the fund.

154. This requirement could be imposed by regulation in order to ensure that all creditors comply.

155. Victoria E. Schonfeld & Thomas M. J. Kerwin, *Organization of a Mutual Fund*, 49 BUS. LAW. 107, 116 (1993) ("Multiple legal entities, however, inevitably require duplication and expense resulting from separate boards, agreements with service providers, prospectuses, periodic reports, and other regulatory filings."). A recent article states that "it appears likely that the vast majority of funds in existence today are formed as part of a series entity." Joseph A. Franco, *Commoditized Governance: The Curious Case of Investment Company Shared Series Trusts*, 44 J. Corp. L. 233, 246 (2019). Insofar as funds are now often formed as multiple series under a single LLC or trust, it would presumably reflect asset partitioning arising out the investment company act. *See* ICA § 18(f)(2), 15 U.S.C. § 80a-18(f)(2) (2012) (permitting mutual funds to issue multiple securities series if and only if each series "is preferred over all other classes or series in respect of assets specifically allocated to that class or series").

156. Hansmann & Mattei, *supra* note 147, at 468; Morley, *supra* note 147, at 1271. As in the case of captive insurance, security interests would also be a cumbersome mechanism for fixing the priority of investors in mutual funds. The investors would need to file a financing statement to register their security interest and to establish control over their respective accounts. *See supra* note 141.

Although there has been significant academic focus on the evolution of entity law,[157] the evolution of novel security interests has been largely overlooked. These forms evolved primarily from the late 1990s in off-shore jurisdictions, but they have also been adopted in many U.S. states, including Delaware.[158] The key feature of these forms is that they allow certain entities to subdivide their assets, pledging individual pools of assets to individual creditors. These forms first appeared as a solution to the high costs of setting up entities for captive insurance purposes, which also include the fees for insurance licenses for each captive entity.[159] But they have been increasingly used to set up mutual funds, securitization products, and even real estate firms.

These entities are often called protected cell companies and the individual pools are often called cells or protected cells, although some jurisdictions use other names, such as segregated portfolio companies and segregated portfolios, respectively.[160] In the US, business planners may also use the series trust and series LLC, which allow these entities to form separate asset pools called series. Figure 9 shows the structure of entities that have the power to create these instruments. The entity itself may be a protected cell company or a series LLC. The assets are placed in the cells or the series, and they are pledged for the benefit of specific creditors, just like in the case of entities and security interests. For convenience, we will refer to all types of such asset pools as cells, but our claims will also apply to other types, such as the series or segregated portfolios.

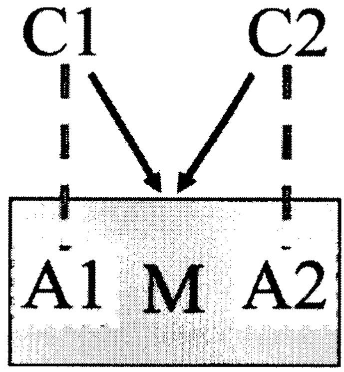
157. *See, e.g.*, Henry Hansmann, Reinier Kraakman & Richard Squire, *The New Business Entities in Evolutionary Perspective*, 2005 U. ILL. L. REV. 5, 5–14 (2005).

158. Other U.S. states that have protected cell legislation where many captive insurance companies incorporate include Vermont, Utah, and Nevada. *See* FEETHAM & JONES, *supra* note 123, at 56–57.

159. These costs can be significant for small businesses. *See id.* at 7–10.

160. The name "cell" emerged from the terms used by insurance companies to discuss each account in a rental captive product, in structures that used only contractual terms and security interests in an attempt to create fixed priority and bankruptcy remoteness. *Id.*

FIGURE 9. Protected Cell Partitioning



The asset pools within the entity (the cells) exhibit properties of both bodies of asset partitioning law. Like entities, they do not require creditors to define the assets in the pool or file a financing statement (in other words, the assets are floating), and they usually limit the liability of creditors to the assets of the cell. On the other hand, similar to security interests, they do not have a dedicated management or elaborate governance rules (other than those that regulate the asset segregation), and with few exceptions, they do not have separate legal personality.

Nonetheless, most of these legal forms are better viewed as security interests, because managers for most of these legal forms lack the ability to update creditor priority within each cell, and hence the cells exhibit fixed priority. Many of these forms are limited to specific uses for either captive insurance, investment funds, or securitizations. As such, they are subject to legal mandates, including industry-specific regulations that limit managerial discretion to alter creditor priority. These regulations also provide cells with a much greater degree of bankruptcy remoteness than standard security interests, because the creditors of the cells usually have no recourse to any others cells, including in the event that the company as a whole becomes bankrupt. In this way, they address the deficiencies associated with security interests that make them inadequate for the key financial products described above.

We describe three examples, one for each of the three financial products discussed in Part IV. Consider first the protected cells regimes, of which Delaware's can serve as an example. Its cell regime is limited to captive insurance companies.[161] The law clearly provides that "[t]he assets of a protected cell shall not be chargeable with liabilities of any other protected cell or . . . of the sponsored captive insurance company generally[,]" unless stipulated in the participation agreement.[162] The priority of creditors of each cell is also fixed. The reason is that protected cell companies are not permitted to incur material debts, and the cells are subject to the same restrictions on indebtedness as the captive insurance companies themselves.[163] Furthermore, the liability of each participant insured by a captive insurance company is limited to its share in the assets of a protected cell,[164] and participants may not be added without permission from the regulator.[165] Moreover, the captive insurance company is not permitted to transfer any assets of a protected cell without the participants' consent or regulatory approvals.[166]

In this way, the law effectively makes the cells bankruptcy remote. To be sure, there is formally no bankruptcy protection in the sense that if the company itself is liquidated or rehabilitated, presumably the cells will be as well. However, captive insurance companies have largely no material creditors, and each of the insured as creditors of cells only have recourse to the cells themselves.[167] Thus, it is difficult to envisage a situation where the default of one cell could lead to the default of the company and the other cells. Moreover, protected cells may be subject to their own liquidation proceedings without impairing the other cells.[168] Finally, if the protected cell company itself is in default and is being liquidated, "[t]he assets of a protected cell may not be used to pay any expenses or claims other than those attributable to such protected cell."[169] Accordingly, even if the company is

161. The Delaware statute seems to be based on the protected cell regime that was first adopted in countries such as Guernsey, and the segregated portfolio companies in countries such as the Cayman Islands. *See* FEETHAM & JONES, *supra* note 123. One difference, though, is that the statutes in offshore jurisdictions seem to be available for forming mutual funds and securitization SPEs, whereas the Delaware statute is limited to captive insurance.

162. DEL. CODE ANN. tit. 18, § 6934(3) (2018). Also, the assets, results of operations, and financial condition of each cell must be documented separately. *Id.* § 6934(2).

163. *See supra* Section IV.B.

164. DEL. CODE ANN. tit. 18, § 6932(1)–(2).

165. *Id.* § 6934(8).

166. *See id.* § 6934(4)–(5).

167. The priority created by the cells is symmetric in the sense that no creditors have deficiency claims to assets of the company which are not placed in their respective cells. As argued by Richard Squire, asymmetric priorities can generate shifts of value from the one creditor to another, for example, where a secured creditor can also claim on the unsecured assets. Because the creditors of each cell have no recourse to assets of other cells, the priorities are symmetric and therefore are not vulnerable to such value-shifting. *See* Squire, *supra* note 8, at 861.

168. DEL. CODE ANN. tit. 18, § 6918.

169. *Id.* § 6938(1). The protected cell company's minimum capital and surplus must be available to

liquidated, the cells are protected from the liabilities of the protected cell company, and thus the rights of each cells' creditors are unlikely to be jeopardized.

Protected cells are increasingly used to structure investment funds as *umbrella funds*.[170] In the U.K. version of umbrella fund legislation, protected cells are specifically designed to form open-ended mutual funds under the Open-Ended Investment Companies Regulations. Each cell may constitute a separate sub-fund, and the sub-funds are subject to the same regulations as funds.[171] Under the regulations, "the assets of a sub-fund belong exclusively to that sub-fund and shall not be used to discharge the liabilities of or claims against the umbrella company or any other person or body, or any other sub-fund, and shall not be available for any such purpose . . . ."[172] The regulation further mandates that the liabilities of a particular sub-fund can be paid only out of the assets of that sub-fund[173] and declares all contrary provisions void.[174]

The priority of each cell is again fixed under the regulations, which subject each fund and sub-fund to restrictions on indebtedness and prescribe the rights of investors to the fund's assets. Specifically, the funds may only borrow on a "temporary basis" (defined generally as under three months),[175] and such borrowing may never exceed 10 percent of the value of the fund's property.[176] Moreover, fund investors are entitled to a proportionate share of the net asset value of the underlying assets when they decide to redeem their shares.[177]

As mentioned above, the cells enjoy substantial bankruptcy remoteness. Given the strict limitation on liabilities, it is hard to envision a realistic situation in which the creditors of each cell could file for the winding-up of the company, because their claims are limited to the cell and the non-cellular assets are subject to substantial limitations on indebtedness. Moreover, each

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pay claims against the protected cell company. *See id.* § 5911.

170. FEETHAM & JONES, *supra* note 123, at 23–27.

171. The Open-Ended Investment Companies (Amendment) Regulations 2011, SI 2011/3049, art. 3, ¶ 2 (Eng.), ("'[S]ub-fund' means a separate part of the property of an umbrella company that is pooled separately.").

172. *Id.* ¶ 11A(1).

173. *Id.* ¶ 11A(2).

174. *Id.* ¶ 11A(3).

175. *See* FIN. CONDUCT AUTH., COLLECTIVE INVESTMENT SCHEMES § 5.5.4 (2019), www.handbook.fca.org.uk/handbook/COLL.pdf.

176. *See id.* §§ 5.5.5, 5.5.7 (prohibiting mortgages of the scheme property).

177. FIN. CONDUCT AUTH., THE PERIMETER GUIDANCE MANUAL § 9.9.2 (2019), www.handbook.fca.org.uk/handbook/PERG/9.pdf.

sub-fund can be wound up without impacting the umbrella company.[178]

Lastly, Luxembourg as well as other jurisdictions has established a regime for the formation of securitization funds managed by a management company.[179] Each securitization fund is supposed to serve as a vehicle for securitizing separate pools of assets. The rules for such funds, including those regarding the rights and obligations of the management, must be laid out in the management regulations of the fund,[180] and these management regulations must be filed with the trade and company registry.[181] The securitization fund is liable only for obligations imposed or contracted for under its management regulations.[182] The fund is not liable for the obligations of the management company or its investors.[183] Securitization funds may further be subdivided into separate pools called compartments, and separate management regulations may apply to each compartment.[184] Neither creditors of the management company nor the investors have rights of recourse against assets in the securitization fund.[185] The statute further requires that funds write into their management regulations "the circumstances in which the fund or one of its compartments will be in, or may be put into, liquidation."[186] This makes it possible to provide for the separate liquidation of each securitization fund without risking the liquidation of the management company,[187] and in fact, regulators have treated this structure as if it guarantees the bankruptcy remoteness of the funds.[188]

Although the above forms are essentially security interests with greater bankruptcy remoteness, we do not believe that all new forms should be

178. Jane Thornton & Jane Tuckley, *Winding Up an OEIC or OEIC Sub-Fund*, PRACTICAL LAW UK PRACTICE NOTE, 0-504-3966 (2017).

179. Loi du 22 mars 2004 relative à la titrisation [Law of 22 March 2004 on Securitization], JOURNAL OFFICIEL DU GRAND-DUCHÉ DE LUXEMBOURG [OFFICIAL GAZETTE OF LUXEMBOURG], 29 Mar. 2004, art. (6)(2) (Lux.) *translated in Law of 22 March 2004 on Securitisation*, COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER [hereinafter Law of 22 March 2004 on Securitisation]. France and Italy have similar securitization laws. *See* FEETHAM & JONES, *supra* note 123, at 67, 115; Decreto Legge 14 marzo 2005, n.35, G.U. Mar. 16, 2005, n.62 (It.).

180. Law of 22 March 2004 on Securitisation, art. (10)(1).

181. *Id.* art. 10(3).

182. *Id.* art. 12.

183. *Id.*

184. *Id.* art. 10(2).

185. *Id.* art. 17.

186. *Id.* art. 10(1).

187. *Securitisation Undertakings*, COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER, http://www.cssf.lu/en/supervision/ivm/securitisation (last visited Jan. 29, 2019).

188. *Id.* ("Securitisation undertakings subject to the 2004 Law enjoy high legal certainty because the 2004 Law expressly lays down the principles of limited recourse and non petition aiming to ensure the securitisation undertaking's *bankruptcy remoteness*." (emphasis added)).

understood the same way. Others appear to be new forms of entities. An important example is the series LLC, which is an LLC that can partition its assets and liabilities among distinct series.[189]

Unlike the forms described above, the series LLC is not limited to specific purposes, such as captive insurance and securitizations. The LLC operating agreement may provide classes of members and managers with different rights and duties.[190] Each series may have a different business purpose and different rights, powers, and duties with respect to the assets held in each series.[191] The assets of each series appear to be segregated in much the same way as those in protected cells,[192] and they likewise seem to be bankruptcy remote.[193] In particular, the series in principle have floating priority because the manager of the LLC has discretion to update the priority of the creditors of each series.

The series LLC is therefore much like an entity. Although one might think that the series LLC may be popular as a way to economize the costs of forming many LLCs, it does not appear to be widely used.[194] The reason is likely that investors have little appetite for yet another enterprise with floating priority. As we explained in Section II.C, floating priority entails high costs of investigation and monitoring, which likely outweigh the costs of forming a new entity. Thus, the series has little advantage over the parent

189. DEL. CODE ANN. tit. 6, § 18-215(a)–(c) (2018).

190. *Id.* § 18-215(e).

191. *Id.* § 18-215(a).

192. The debts, obligations, and liabilities incurred by each series are enforceable only against that series, and creditors of the series LLC itself have no recourse against the assets held within each series. *Id.* § 18-215(b). For the liability shields to be effective, assets of each series and the assets of the LLC itself must be kept separate and records of the assets of each series must be maintained. *Id.*

193. To be sure, although there is no settled law on the point, the liquidation of the LLC would appear to trigger the liquidation of the series, and to this extent, the series have no bankruptcy protection. *See id.* § 18-215(k) (a series is dissolved upon the dissolution of series LLC under which it is organized). Also, because each series is potentially structured as a subsidiary of an operating company (as opposed to a regulated management company with limited debt), there is greater risk that a bankruptcy court will consolidate the assets of the LLC and its series. Meredith Pohl, *Taking the Series LLC Seriously: Why States Should Adopt This Innovative Business Form*, 17 J. BUS. & SEC. L. 207, 229 (2017) (commenting that series LLCs by their "very nature" include some factors strongly weighed in substantive consolidation, in that "parent" LLCs create their subsidiary series; documentation for series may be minimal; and different series within an LLC may run different parts of the same business). However, creditors have notice of a series LLC's limited liability, which cuts against substantive consolidation. *Id.*

194. *See* Pohl, *supra* note 193, at 210 n.5. A separate but similar legal form is the series trust, which is generally used to partition assets in investment funds. *See generally* DEL. CODE ANN. tit. 12, § 3806(b) (explaining that statutory trust's governing instrument may set out management pensions). Series trusts lack legal personality. *See* Eric A. Mazie & J. Weston Peterson, *Delaware Series Trusts—Separate but Not Equal*, 16 INV. LAW. 1, 3 (2009), www.rlf.com/files/CorpTrust01.pdf (noting that investment professionals would find it undesirable for the purposes of SEC registration if series trusts were considered separate entities).

entity (that is, the LLC) that created the series. By contrast, cellular structures with fixed priority are widely used in securitization, captive insurance, and investment funds, suggesting great appetite for innovation based on the core element of a security interest.

The forgoing has attempted to shed light on the purpose and nature of novel business forms, without dwelling on the nature of legal personality. Although it is tempting to deduce that a legal form is an entity because it has legal personality (or that it is not an entity because it lacks personality), such inferences are not helpful in illuminating the function of legal forms. This is in part because legal personality is not consistently and rationally organized in the statutes creating novel forms. For example, most laws state that such cells do not have legal personality, but others do, and some are silent on the point.[195] Legislatures' decisions about whether to allocate legal personality to each pool of assets seem to be largely arbitrary and unrelated to the specific attributes of the legal form. This further reinforces the claim we made in Section III.F that legal personality cannot serve as a distinguishing principle between entities and security interests. It also highlights the importance of functional analysis for legal policy, as we discuss in the following Part.

VI. POLICY IMPLICATIONS

A. JUDICIAL TREATMENT OF THE NEW LEGAL FORMS

Courts are increasingly confronted with complicated questions involving novel business forms. Without functional criteria to guide them, judicial decisions are likely to be formalistic or arbitrary. Early cases tended to fixate on the legal personality, rather than the economic objectives of the legal forms chosen by the parties who set up the relevant enterprise. In particular, courts have undermined the asset partitioning of cell structures based on the notion that they lack legal personality. In doing so, they frustrate the very purpose of these forms, which is to establish fixed priority combined with bankruptcy remoteness. By recognizing fixed and floating priority as the critical choices parties make, our account can help guide courts with

195. FEETHAM & JONES, *supra* note 123, at 53–55. Some jurisdictions have adopted legislation allowing for the formation of an Incorporated Cell Company ("ICC"), which performs the same functions as a PCC, but allocates a separate entity status to each cell. *See, e.g.*, The Companies (Guernsey) Law 2008, pt. XXVII (addressing incorporated cells); N.C. GEN. STAT. § 58-10-510 (2018) (authorizing incorporated cells); *see also* FEETHAM & JONES, *supra* note 123, at 129–30. Many novel forms can hold assets in their names and take legal actions, but they do not appear to have a separate legal personality. *Id.* at 53–55; *cf.* MONT. CODE ANN. § 33-28-301 (2018) (permitting cell to own property while lacking legal personality).

these difficult determinations.

Consider one of the only American cases addressing the treatment of cells.[196] Pac Re, a Protected Cell Company ("PCC"), agreed on behalf of one of its cells (5-AT) to reinsure AmTrust. When an insurance claim was made, Pac Re argued that only the relevant cell was liable. AmTrust disagreed and compelled arbitration for recourse to *all* of Pac Re's assets.[197] "The result of the arbitration is that Pac Re, not just its 5-AT captive cell, must pay AmTrust a whole lot of money."[198] Why?

AmTrust's victory was not compelled by clear statutory language: the insurance statute was unclear about whether creditors of a protected cell could proceed against the PCC,[199] though it was explicit that individual cells were not liable for the debts of the PCC or other cells.[200] The contract was likewise unclear about whether the cell's debts could be satisfied from the PCC's assets.[201] Ultimately, a federal district court concluded that the PCC was *not* liable for the debts of its cell.[202] However, the court still sent Pac Re to arbitration because the contract compelled arbitration for some person, and Pac Re was the only legal person around; the cell had no legal personality separate from the PCC.[203] Once Pac Re was before the tribunal, the arbitrators reinstated liability and required it to pay out almost $8 million on behalf of Cell 5-AT.[204]

It seems unlikely that this result is what commercial parties would have wanted. Parties use cells in order to isolate a pool of assets from all other

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196. Other courts have confronted foreign cells and given them no better treatment. *See, e.g.*, Arrowood Surplus Lines Ins. Co. v. Gettysburg Nat. Indem. Co., No. 3:09CV972 (JCH), 2010 U.S. Dist. LEXIS 33727, at *3 (D. Conn. Apr. 6, 2010) (requiring a Bermuda PCC to post security on behalf of its cell in excess of the cell's assets and finding that "[i]f the [cell] is undercapitalized, defendant has recourse against the shareholders under the terms of their agreement").

197. Pac Re 5-AT v. AmTrust N. Am., Inc., No. CV-14-131-BLG-CSO, 2015 U.S. Dist. LEXIS 65541, at *1–3 (D. Mont. May 13, 2015).

198. AmTrust N. Am., Inc. v. Pac. Re, Inc., No. 15-cv-7505 (CM), 2016 U.S. Dist. LEXIS 44889, at *9 (S.D.N.Y. Mar. 25, 2016); *see also id.* at *7 (upholding award despite noting that the arbitrators "may have misinterpreted the applicable law . . . .").

199. Other statutory language suggests that debts of the cell are non-recourse to the parent. *See* MONT. CODE ANN. § 33-28-301(2)(b) (2017) ("All attributions of assets and liabilities between a protected cell and the protected cell captive insurance company's general account must be in accordance with the plan of operation and participant contracts approved by the commissioner.").

200. *Id.* § 33-28-301(4)–(5).

201. *See generally* Petition to Confirm Arbitration, Ex. 1, Amtrust N. Am., Inc. v. Pac Re Inc., No. 15-cv-7505 (CM) (S.D.N.Y. May 23, 2016), ECF No. 1-1 (providing a copy of the reinsurance contract).

202. *Pac Re 5-AT*, 2015 U.S. Dist. LEXIS 65541, at *10 ("It is clear that the liabilities and assets of a protected cell are segregated from the other cells and from the PCC.").

203. *Id.* at *4–5.

204. AmTrust N. Am., Inc. v. Safebuilt Ins. Servs., No. 16-cv-6033 (CM), 2016 U.S. Dist. LEXIS 153399, at *4, *18 (S.D.N.Y. Nov. 3, 2016).

debts and assets. Historically, parties did this by forming a separate entity but moved to cells in order to economize on the administrative and regulatory costs of forming entities. *Pac Re* seemingly gives cell-based captives less effective asset partitioning than entity-based captives. In the aftermath of the decision, credit rating agency Fitch noted that full recourse "could potentially cause disruption or financial stress for the protected cells in that PCC"[205] because the creditworthiness of all cells within the PCC became central to the status of the cell.

The business model of captive insurance is based on the fixed priority each insured has to each cell. Each insurance customer seeks to avoid the risk that new claimants might arise as peer or superior in status.[206] If the creditors of one cell can potentially levy on the assets of other cells in the group, then the customers of other cells must worry about the promises the insurance management company makes.

Pac Re potentially converts other cells' fixed priority to floating priority by rejecting Pac Re's statutory and functionalist argument. The court instead waxed jurisprudential about the nature of legal personhood and found that Pac Re rather than Cell 5-AT was the appropriate defendant in the lawsuit.[207] More troublingly, however, the court appears to suggest that legal personhood is dispositive of whether the segregation of the cells' assets should be respected: "[T]hat a protected cell should be segregated and isolated from the core and any other protected cells in the PCC misses the mark in this lawsuit because a protected cell is not a separate legal person."[208]

Legal personality is an inadequate lynchpin for this kind of decision in a world in which entity-like functions are frequently exercised by forms whose personhood is unclear.[209] The question of who should be named in a

205. *Protected Cell Risk Exposed by Court Decision: Fitch*, CAPTIVE INT'L (Nov. 2, 2015), www.captiveinternational.com/news/protected-cell-company-risk-exposed-by-court-decision-fitch-1321.

206. *Infra* Section IV.B.

207. "[A] cell is not a separate *de jure* legal entity, but has many *de facto* aspects of a legal entity." *Pac Re 5-AT*, 2015 U.S. Dist. LEXIS 65541, at *10. Thus "[w]ithout a separate legal identity, and absent a statutory grant to the contrary, a protected cell does not have the capacity to sue and be sued independent of the larger PCC." *Id.* at *11. Accordingly, the court concluded that the PCC was "properly before the arbitration tribunal and will appropriately be bound by the results of the arbitration." *Id.* at *11.

208. *Id.* at *10–11.

209. *See* Alphonse v. Arch Bay Holdings, L.L.C., 548 F. App'x 979, 984 (5th Cir. 2013) ("[T]he separate juridical status of a Series LLC with respect to third party plaintiffs remains an open question."); Hartsel v. Vanguard Grp., Inc., No. 5394-VCP, 2011 Del. Ch. LEXIS 89, at *1–4 (Del. Ch. June 15, 2011), *aff'd*, 38 A.3d 1254 (Del. 2012) (holding that a series trust is not a separate legal entity); Mazie & Peterson, *supra* note 194, at 3, 5 (noting that investment professionals would find it undesirable for the

lawsuit—an assets pool's owner, its manager, or the pool itself—is analytically separate from the question of what assets are available to satisfy claims. Courts must be mindful of parties' asset partitioning choices and the priority structures they adopt. Determining the permeability of these partitions on the basis of legal personality or other beside-the-point criteria is misguided.

B. Bankruptcy Remoteness for Security Interests

We have shown that there is substantial appetite for fixed priorities with bankruptcy remoteness. The law has long permitted this arrangement, but it has generally required the use of two instruments: a security interest and an entity. This is reflected in the structure of the financial products we discussed in Part IV. With more respect for the security interests the entities would be superfluous in such structures.

The law would be improved if it respected the bankruptcy remoteness of security interests in such contexts without requiring the interposition of an entity. Any time that parties are capable of establishing fixed priority and bankruptcy remoteness, there should be an option for them to achieve that effect without actually forming an entity. As long as all creditors have proper notice of the asset partitions, there is little need to require parties to form a separate entity.[210] Specifically, this means that non-recourse secured claims on assets would be respected in bankruptcy to the same degree that non-recourse claims on a subsidiary (or a SPE) that contains the asset would be respected.[211]

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purposes of SEC registration if series trusts were considered separate entities).

210. Many cell-based regimes require cells and their parent companies to clearly designate themselves as such. *See, e.g.*, MONT. CODE ANN. § 33-28-301(2)(a)(iii) (2017) ("A protected cell must have its own distinct name or designation that must include the words 'protected cell' or 'incorporated cell.'"). Under Italian law, a company can set aside up to ten percent of the company's assets for the benefit of a designated creditor, if it provides notice in the commercial registry containing its fundamental documents. CODICE CIVIL [C. c.] art. 2447-bis, quater (It.) (providing notice subject to Article 2436).

211. This proposal is therefore distinct from the safe harbor from bankruptcy law that was once proposed for asset-backed securities. That proposal, Section 912 of the Bankruptcy Reform Act of 2001 would have excluded from a debtor's estate "any eligible asset (or proceeds thereof), to the extent that such eligible asset was transferred by the debtor, before the date of commencement of the case, to an eligible entity in connection with an asset-backed securitization, except to the extent that such asset (or proceeds or value thereof) may be recovered by the trustee under section 550 by virtue of avoidance under section 548(a)." Bankruptcy Reform Act of 2001, H.R. 333, 107th Cong. § 912. Its effect would have been to curtail state law fraudulent conveyance actions often used to challenge entity-based securitization. Section 912 would have greatly increased the effectiveness of entity-based bankruptcy remote securitizations. By contrast, our proposal would take as a given *whatever* degree of bankruptcy remoteness is available through entities and provide that the same protection can be available to designated security interests.

At minimum, this reform would have the modest effect of saving the transaction costs of creating new entities. These costs are not trivial when business planners pledge numerous asset pools to numerous creditors, in circumstances where creditors seek safe assets that are easy to evaluate, and the value of managerial discretion is low. It is also possible that such a reform would have more wide-reaching beneficial effects. In particular, a growing number of businesses consist of numerous entities.[212] Thus, our proposal could in principle reduce organizational complexity by making entities redundant for some financial products.[213] It is also possible that pooling assets within security interests would further mitigate wrongful asset-shifting.[214]

How should this reform be effected? One way to do this is by identifying specific structures or transactions which would benefit from the combination of fixed priority and bankruptcy remoteness. This is essentially the approach of specialized legislation for captives, mutual funds, and securitizations. Another option is to create a set of general conditions, potentially applicable to any security interest. For example, a statutory safe harbor could be introduced for any non-recourse security interests;[215] qualifying secured claims would enjoy substantial protections—such as release from bankruptcy's automatic stay[216] and exemption from the collection efforts of unsecured creditors[217]—which would have arisen

212. *See, e.g.*, Avraham, *supra* note 83 (finding that seven bank holding companies own almost 15,000 subsidiaries). For example, Wells Fargo had 1270 subsidiaries in 2012, but just five accounted for 92.5% of the assets.

213. *See* Triantis, *supra* note 11, at 1107 ("The more an enterprise is fragmented into discrete firms, the more significant the legal constraints on capital budgeting flexibility.").

214. For example, Dharmapala and Hebous have found that subsidiary profits tend to cluster around zero. Dhammika Dharmapala & Shafik Hebous, *A Bunching Approach to Measuring Multinational Profit Shifting* 32 (Working Paper, Oct. 2017). One interpretation is that firms work to move profits out of profitable operating companies. Another interpretation is that many entities are shells, the assets and profits of which are at the whim of the parent company.

215. Any emphasis on non-recourse debt puts our proposal on different footing than efforts to legislatively support covered bonds in the United States. Covered bonds are ordinarily full recourse to the issuer (albeit on an unsecured basis, for the deficiency). *See* Schwarcz, *supra* note 93, at 566–67. This full or "double" recourse is part of the appeal for policymakers and investors seeking a safer alternative to securitization. *See* Judge, *supra* note 131, at 717. However, non-recourse debt has desirable properties from an asset partitioning perspective. *See* Squire, *supra* note 8, at 813–14. Apart from this important distinction, our analysis is supportive of efforts to establish an American covered bond regime.

216. The automatic stay blocks payments to creditors and prevents them from seizing property. 11 U.S.C. § 362 (2012). However, it permits the trustee to make cash payments to creditors when the stay results in a decrease in the value of the property. *Id.* § 361(1). Courts could construe this provision liberally, recognizing that the value of assets are higher if creditors can be assured uninterrupted payments. This is particularly true where the parties could certainly have circumvented the automatic stay by structuring the transaction as a loan to a subsidiary, which is not part of the debtor's estate.

217. If an asset is isolated in an entity, creditors on other pools cannot levy on it. U.C.C. § 9-610

through entity-based financing.

The latter proposal raises the concern that permitting secured parties to opt for greater bankruptcy protection would transfer wealth away from non-adjusting creditors, such as tort victims, and accordingly drive firms to create and externalize too much risk. There is a rich debate on the costs and benefits of a regime that privileges one group of creditors above another, and we do not intend to settle it in this paper.[218] However, our proposal is limited to contexts where entity-based bankruptcy remoteness is already feasible. Whether such protections are efficient or not, it is of little importance whether the means is a security interest or an entity.

Should we go even further and allocate bankruptcy remoteness to all security interests? That is, even security interests that retain the creditor's deficiency claims to the other assets of the owner? Doing so would amount to a major change in bankruptcy policy, given that most assets entering into bankruptcy are subject to secured claims.[219] Here too, there is extensive literature debating whether parties should be able to opt out of bankruptcy or customize its terms.[220] So far, the trend has been in the opposite direction,[221] but new technologies raise new questions. As we show in the next Part, even if these new technologies do not result in a contractarian bankruptcy system, they may increase quantity and variety of property-like law in commercial life.

(AM. LAW INST. & UNIF. LAW COMM'N 2010) permits unsecured and deficiency creditors to dispose of collateral even if subject to a senior lien.

218. Some of the literature urges altering security interests to benefit sympathetic claimants. *See, e.g.*, Lucian Arye Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857, 909 (1996); David W. Leebron, *Limited Liability, Tort Victims, and Creditors*, 91 COLUM. L. REV. 1565, 1643–46 (1991); Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 VA. L. REV. 1887, 1907–10 (1994); Elizabeth Warren, *An Article 9 Set-Aside for Unsecured Creditors*, 51 CONSUMER FIN. L.Q. REP. 323, 325 (1997). *But see* Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807, 1850–51 (1998) (arguing against mandatory and retributive adjustments to party-contracted priority). A similar literature exists for the liability limitations created by entities. *Compare* Lynn M. LoPucki, *The Death of Liability*, 106 YALE L.J. 1, 19–30 (1996) (arguing that entity structures can be abused to externalize costs), *with* Stephen M. Bainbridge, *Abolishing Veil Piercing*, 26 J. CORP. L. 479, 513–35 (2001) (arguing against entity disregard).

219. Elizabeth Warren & Jay Lawrence Westbrook, *Contracting Out of Bankruptcy: An Empirical Intervention*, 118 HARV. L. REV. 1197, 1213 (2005) (approximately 70% of the assets of bankrupt commercial debtors are pledged to secured parties).

220. *Compare id.* (arguing that substantial inefficiencies and costs undermine the case for contractualism in bankruptcy), *with* Schwartz, *supra* note 218 (arguing for fewer barriers to free contracting in bankruptcy).

221. *See supra* note 112 and accompanying text (describing the relative reduction of rights for secured parties post-1978).

VII. ENDURING LEGAL AND TECHNOLOGICAL INNOVATIONS

One question for future research is how enduring this distinction will be. Do future innovations in business form threaten it? Blockchain infrastructure is a means of witnessing and recording transactions on "distributed, open and unalterable ledgers."[222] This technology facilitates "smart contracts," which are computer scripts that execute transactions, such as mutual promises between contracting parties, now and in the future.[223] Blockchain technology records transactions and makes those records publicly available to those with access to the blockchain network. Because of this widespread notification, privately created contracts bind third parties who are members of the network.[224] In so doing, blockchain technology essentially blurs the distinction between contract law and property law because it facilitates instruments that can be highly customized yet resilient against third-party claims.[225]

How might blockchain technology and the collapse of the contract/property divide affect the distinction between entities and security interests? Blockchain technology might substitute for security interests because it can create fixed priorities to specific assets that bind third parties.[226] Blockchain technology might also substitute for legal entities because it can allow an owner to designate a set of assets for the benefit of certain creditors, while reserving in the smart contract the right to update creditor priority as time goes on.[227]

222. Richard Holden & Anup Malani, *Can Blockchain Solve the Holdout Problem in Contracts?* 4 (Univ. Chi. Coase-Sandor Inst. for Law & Econ., Research Paper No. 846, 2017), https://ssrn.com/abstract=3093879.

223. *Id.* at 5.

224. Even without legal enforcement, blockchain networks are usually designed to render mechanically impossible any later transactions inconsistent with earlier ones. This feature is often praised as a solution to the *double spend problem*, in which the same assets are promised as payment to more than one recipient. The double spend problem is a defining feature of contractual priority schemes, in which the same assets can be pledged more than once.

225. *See, e.g.*, Kevin Werbach & Nicolas Cornell, *Contracts* Ex Machina, 67 DUKE L.J. 313, 342 (2017) (arguing that smart contracts illuminate rather than supplant contract law). For analysis of blockchain's potential effect on other bodies of law, see generally Michael Abramowicz, *Cryptoinsurance*, 50 WAKE FOREST L. REV. 671 (2015); Jon O. McGinnis & Kyle Roche, *Bitcoin: Order Without Law in the Digital Age* (Northwestern Pub. Law, Research Paper No. 17-06., 2017), https://ssrn.com/abstract=2929133; Alexander Savelyev, *Contract Law 2.0: «Smart» Contracts as the Beginning of the End of Classic Contract Law* 21 (Nat'l Research Univ. Higher Sch. of Econ., Working Paper No. BRP 71/LAW/2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2885241 [https://perma.cc/HS7F-PF3W].

226. On blockchain technology's encroachment on security interests, see Holden & Malani, *supra* note 222, at 22.

227. In fact, the term "distributed autonomous organization" ("DAO") is sometimes used to describe one form of multilateral cooperation through blockchain technology without the use of a legal

While it is difficult to predict the future, we think that modern innovations will not undermine the priority-based distinction. The property-like functions in blockchain systems will still come in floating and fixed priority variants. Parties will stipulate whether they want a given creditor's claim on a pool to be utterly certain or to be subject to demotion in order to accommodate later creditors. This choice is the essential choice between security interest and entity, and parties will tailor their blockchain commitments in ways that reflect that fundamental choice.

Their choice will reflect the same considerations we identified: evaluation costs and the value of management. Where parties want to lower their evaluation costs, they will select smart contractual commitments with fixed priority in the assets, which the owner cannot override. Other parties will bargain to give the owner more flexibility to pledge the asset to other creditors and update the priority scheme over time.[228] This arrangement will make more sense when the owner's freedom is likely to support efficient uses of the assets.

New commercial technology may challenge many familiar concepts, including the orthodox division between contract law and property law. Nevertheless, we speculate that the species of entity and security interest will survive long after the genus of property has dissolved.

CONCLUSION

Recent years have witnessed a Cambrian explosion in the variety of business forms. The financial crisis of 2007 familiarized most Americans with the words "securitization" and "special purpose entity." Mutual funds have become a dominant force in capital markets, and exotic insurance products are becoming part of mainstream business. The menu of legal forms has evolved to allow maximum flexibility in partitioning assets. The most advanced permutation in this process is the introduction of novel forms, such as Protected Cell Companies, Segregated Portfolios, Series LLCs, and a myriad of other instruments. After many decades of simplicity, why an

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entity as such. On blockchain technology's encroachment on entities, see, for example, Carla Reyes, *If Rockefeller Were a Coder*, 87 GEO. WASH. L. REV. (forthcoming 2019), https://ssrn.com/abstract=3082915 (arguing that some blockchain-based structures are business trusts); Usha R. Rodriques, *Law and the Blockchain*, 104 IOWA L. REV. 679 (2019); Nick Tomaino, *The Slow Death of the Firm*, CONTROL (Oct. 21, 2017), https://thecontrol.co/the-slow-death-of-the-firm-1bd6cc81286b.

228. Holden & Malani, *supra* note 223, at 21 (describing a diner who cannot spend her savings on dinner on September 29 because it is earmarked for her October 1 rent payment, which is inconvenient because a borrower may be happy to spend her rent money on Friday and plan to earn or borrow more money on Saturday before her debts mature on Sunday—and some landlords will be willing to leave her that latitude).

explosion of complexity?

We argue that this trend is largely driven by an appetite for fixed priority. Security interests provide this function and entities do not. The rise of financial products like securitization, long associated with entities (such as the "special purpose entity"), is best understood as demand for security interests. The security interests that underlie these products are designed to minimize the costs of evaluating the assets. Most forms of security interests, however, face some difficulty avoiding costly bankruptcy, whereas entities tend to enjoy greater bankruptcy remoteness. Because the lack of bankruptcy remoteness may destroy fixed priority in the event of a bankruptcy, sophisticated parties have found ways to buttress their structures with the supplemental use of entities and, recently, by utilizing legal instruments that purport to provide the fixed claims of security interests alongside bankruptcy remoteness.

Incidentally, our theory also reinforces the view of entities as not just mere interests in assets. Ultimately, entities require some managerial discretion to update the priorities of the creditors (though not necessarily a dedicated or centralized manager). The benefit of maintaining such discretion is to allow the firm flexibility in raising funds for productive activity. Creditors lend to entities when they wish to rely on managed going concerns, whereas creditors who seek to minimize the costs of evaluation require a security interest to minimize managerial discretion to update their priority. Our theory also helps explain the proliferation of these new legal forms: they are not just opportunities to arbitrage insurance regulation, nor are they the inevitable consequence of a commitment to private ordering among chartering jurisdictions. Instead, they are efforts to maintain security interests' fixed priority without necessarily accepting all of the terms (and bankruptcy costs) associated with security interests. This understanding can inform courts as they evaluate cases by identifying the parties' objectives, and it can help legislatures support optimal private ordering. In particular, we argue that when courts allocate priorities among creditors, they should base their decisions on the priorities prescribed by the relevant law, rather than entity status.

Furthermore, we show that there may be reasons to allow non-recourse security interests the benefit of bankruptcy remoteness, even without the fiction of a new legal person.

Finally, our proposed distinction is enduring. Even as new contracting technologies are invented—such as smart contracts and blockchain—and even as bankruptcy laws evolve, parties will still have different appetites for fixed and floating priority.